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WHAT SICK AND CRIPPLED MEN ARE DOING FOR THE FORD MOTOR COMPANY*

How the Ford Motor Company Solves the Most Difficult Problem Created by Physical Examination of Employees—What to Do with the Physically Unfit

By NORMAN McLEOD, in Charge of the Medical Transfer Department, Ford Motor Company, Detroit, Mich.

THE idea of caring for sick and injured men in the way which is now being done by the Ford Motor Company did not entirely originate from a philanthropic point of view, but rather through the ability of the men in charge to see that the time was approaching when it would be necessary for all concerns employing large bodies of men to take those men and place them where they could be used most efficiently. Their wisdom in this matter can be best demonstrated by a glance at the daily report of the examining doctor.

On October 10, 1918, there were examined for employment at the factory 163 men, only 37 of whom were able to pass the physical examination as O. K. Thirteen were found to have varicoceles; 36, poor eyesight; 58, flat feet; 2, heart trouble; 31, poor teeth; 14, varicose veins; 15, hernia; 1, kidney trouble; 1, club foot; 1, tuberculosis; 2, bronchitis; 1, only one eye; 1, deformed leg; 1, hemorrhoids, and one was mentally deficient.

Fig. 1. Sewing machine operated by one-legged man.

These conditions do not change materially from day to day, as, on the following day, October 11, of 185 men examined for employment, 11 had varicoceles; 23, poor eyesight; 58, flat feet; 35, poor teeth; 14, varicose veins; 14, hernia; 7, crippled hands; 4, poor hearing; 1, crippled foot; 2, crippled legs; and only 8 were able to pass the examination as being physically O. K.

Of course, the percentage of crippled men on the labor market at this time is exceptionally high on account of the fact that so many of our young and physically perfect men are at war; but, after peace is declared, these conditions should not change a great deal, since a large part of the men who return will be either sick or injured; and, in addition, a large part of our foreign labor will migrate, in response to great inducements to their former homelands,

*Note that this article pertains to what the crippled men are doing for the Ford Motor Company and not vice versa.

MATERIAL SALVAGE AND HUMAN SALVAGE

The system used in placing men is not complicated and does not differ materially from employment methods used in other factories.

When the man applies for work at the employment office, he is turned over to the exam-

Fig. 2. Tool salvage.

ining doctor, who, after examination, recommends the kind of work he is physically able to do. If he is found to be physically O. K., he is returned to the employment office, from which he is placed. If he is not found O. K., he is referred to the medical transfer department, where a detailed description of each job and operation in the entire factory is kept and so classified that it is an easy matter to place the new employee, no matter what his ailment may be. Nor are all cripples placed in any one department. Each department has its own quota, and it would be a very hard matter to find any one particular group of cripples at any time.

Of course, this does not apply to tuberculous employees, who are segregated in two different buildings, built especially for them on account of the liability of infection. These men are divided into different groups—the advanced and the moderately advanced cases. The advanced cases are men who are in such a weakened condition they are unable to stand all of the time and are quartered in a building known as the Miscellaneous Salvage. Here they sort scrap of all kinds, retap bolts, nuts, screws, studs, make wooden mats, cut glass insulators, and do numerous other small jobs which can be done by a person when seated. At the present time there are employed in this department 65 men, whose profit to the company, after paying them at the rate of $5 per day, is approximately $600 per week.

HOW TUBERCULOUS EMPLOYEES ARE HANDLED

The department for tuberculous employees was started about two years ago. At that time the working force consisted of four tuberculous men whose condition was such they were considered a menace to other employees around them and for this reason should be taken out of the factory. The doctor in charge had small hopes of their recovery and advised that they be sent to a sanatorium for treatment, but the men claimed that they could not afford it, as all had large families to support. As no building was available for them at that time, arrangements were made to place them under a tree at the edge of a grove in the rear of the factory, where they were to do light salvage work of different kinds. Three of those men are working today in the Miscellaneous Salvage and the fourth is well enough to return to his old trade (blacksmithing) in another department.

The moderately advanced tuberculous cases are quartered in what is known as the box factory or Lumber Salvage. Here all packing boxes received at the factory are knocked apart, the nails pulled, and the lumber converted into new boxes for our own shipping. There is salvaged approximately 220,000 feet (board measure) of lumber per week, the work being done by about 50 tuberculous employees, showing a profit to the company of more than $2,600 per week.

Salvage work in any large factory offers a very practical means of caring for crippled men whose

Fig. 3. Lumber salvage and box factory for employees.

infirmities render them unfit for production work where speed is required. As the majority are tradesmen of one kind or another, here the carpenter finds work at which he is familiar in replacing hammer handles, repairing shop furniture, etc.; the machinist, at reclaiming tools of every description; the shoemaker, at mending boots and shoes used about the factory, and a great many others find different kinds of work where a certain amount of skill is required. Approximately 50 old and crippled men are used at this work, and they show a profit to the com-

pany in dollars each day of an amount that runs well into four figures.

There is almost no end to the jobs which can be found for and done by crippled and sick men in any factory, providing the proper means are employed in arranging the work and placing the men. At first it looks like a costly proposition to arrange the departments to suit the men, but it has invariably proved an excellent investment, since it tends to increase the efficiency and contentment of the employees.

TURNOVER REDUCED FROM THIRTY TO THREE PER CENT

An instance may here be cited which will corroborate the above statement. In one department in the factory where the material handled was quite heavy, it was found that an average of 30 per cent of the men were applying each month for transfers to other departments. Upon investigating the trouble, it was found that most complaints came from the fact that the stock had to be lifted from the floor to the machine, and back. This resulted in lame backs, hernia, and a large amount of dissatisfaction among the men. When this fact was brought to the attention of the management, steps were immediately taken to install a system of chain falls and angle iron slides, so that the men would at no time have to lift the stock from the floor or strain themselves in any

Fig. 4. Interior of Miscellaneous Salvage for tuberculous employees.

way. The result was that the percentage of men applying for transfer from this department dropped to 3 per cent, and the output was increased more than 10 per cent. This improved condition made it possible to put in that department men of slighter build, thus avoiding the necessity of getting big huskies, who were hard to find.

In the hiring of men, it is just as necessary to know their physical condition as it is to know their ability to do certain kinds of work if they are to be made one hundred per cent efficient. There is as much judgment used in hiring a toolmaker who has not demonstrated his ability to read a blue-print as there is in hiring a man without knowing his physical condition. Both are put to work under a handicap which invariably

Fig. 5. Blind men assembling paper boxes in magneto department.

leads to trouble for themselves and everyone else, and eventually helps to swell the labor turn-over columns. There is absolutely no reason why charity should in any way be connected with the hiring of cripples, as it has been very clearly proved again and again that, if they are properly placed, they will earn just as much as any other man and sometimes a great deal more.

Only recently a man about 28 years of age, totally blind, was hired into the factory. At first it was intended to place him with other blind men employed in the same place, but upon investigation it was found that stock for those men was getting low and work must be found elsewhere for him. Three different jobs were soon discovered which he could do, and he was finally assigned to the stock department counting stock (bolts, nuts, etc.) for our branch shipments along with two older men. Two days later instructions were sent from the foreman of this department to transfer the two older men out of the department, as the blind man was doing the same amount of work as was formerly done by them.

If the Ford Motor Company can take those men who need work probably more than anyone else and make as much profit out of them as they do, while paying a flat-rate wage scale, why cannot other concerns who pay only what they think the man and the job is worth to them do the same thing and reap the same profits, both financially and otherwise?

I pray you very solemnly to put that idea of knowing all things in Heaven and Earth out of your hearts and heads. It is very little that we can know, either of the ways of Providence or of the laws of existence. But that little is enough, and exactly enough.—Ruskin.

HOSPITAL CONSTRUCTION: 1918 AND AFTER

Concluding with the Statement of an Organic Principle for the Guidance of Hospital Architects—The Pavilion Type, the Block Type, and the Corridor Type —Architectural Demands of the Group Hospital

By S. S. GOLDWATER, M.D., Director, Mount Sinai Hospital, New York, Former Consultant on Health and Hospitals to the Board of Estimate and Apportionment of the City of New York

THE planning and construction of hospitals for the civil population, after slowing down in 1915, 1916, and 1917, in consequence of rising prices and the scarcity of labor and materials, had come almost to a complete stop before the Government, in 1918, decided that new construction, except for war purposes, must cease altogether. In consequence of the armistice and impending peace, official hindrances have now happily been removed, and it is for the hospitals themselves to decide when hospital construction shall be renewed, and in what manner.

The need of further hospital construction in America rests upon a triple foundation. Hospital buildings are needed where there are none or where the number of available beds has never been proportionate to the needs of the population. This may be termed deficiency construction, and a comparison of hospital conditions in the North with those in the South, or those of the Middle West with those of the Far West, shows that there is still much of it to be done. In communities which at a given point in time were amply supplied, additional hospital beds are needed to keep pace with the growth in population. This may be termed growth construction, and underlying it are two distinct factors. Before the war, growth construction depended quite as much on immigration as on native increase in population. During the past four years immigration has been almost at a standstill, but the sources of the old stream have not dried up, and despite the democratization of eastern and southeastern Europe, the once familiar scenes at Ellis Island may soon be reenacted. As for native increase in population, that has gone on notwithstanding the world war, but without a corresponding growth in hospital facilities. There is, then, not only lost ground to be recovered, but new soil to be prepared for the inevitable new crop of hospital patients from overseas—the immigrants of the next decade. Finally, there are the unavoidable renewals and replacements as old hospital plants become the worse for wear and demand renovation, modernization, and replacement. Replacement construction is a large item, for many of the hospitals that were built before 1900 are not structures of an enduring character, and the majority of them require or will require replacement within from thirty to forty years of the date of erection.

The great center of hospital construction during 1918 was the medical department of the army. In the army, temporary construction prevailed. The type of ward which the army favored during the early months of the war presented no important novelties either in plan or in execution. Two rows of beds, service rooms at one end of the ward, a covered porch along one entire side, a window for each two beds, wood construction—such was the ward. Details of some of the earlier models which proved unsatisfactory, such as inadequate provision for the disposal of sewage and waste, walls devoid of inner lining or of air spaces, the absence of central heating plants, necessitating the introduction of objectionable stoves into the ward, and the absence of quiet rooms, which was very keenly felt, were soon reported and in due course rectified.

During the last months of the war a new ward type came into being, the keynote of which was rigid economy of space, labor, and material. The new ward contained four rows of beds, two rows adjoining the windows and two rows in the interior; an upper story was added, making the new unit one of a hundred beds—a big jump from the previous twenty-six. A ward holding four rows of beds, having a width of more than forty feet, a ceiling height of only ten or eleven feet, darkened along one whole side by the roof of a twelve-foot porch—darkened, furthermore, along half the opposite side by a ramp which serves as a means of entrance to and egress from the second story, is not a model to be justified on any ground except that of military necessity. To answer the question whether military necessity compelled the construction of such a ward, the War Department finally appointed a committee of three experienced architects, but this was not done until the end of the summer of 1918. Realizing that the army was practical rather than idealistic in its hospital conceptions and that there must be no departure from the most rigidly economical rule of construction, this committee set itself the task of taking the given units of material and labor, and of ascertaining whether, without greater expenditure, a better hospital

ward could be produced. The conclusions of this committee are not accessible to the present writer, nor is it known whether the recommendations of the committee, if there were any, met with the approval of the War Department. But, taking into consideration the known facts, it seems safe to assume that neither the theory nor the practice of hospital construction is likely to be greatly affected or advanced by the experience of the army.

As we turn from the war and face the task of permanent hospital construction under the normal conditions of peace, a new problem, which those engaged in hospital planning must have sensed but which has not yet been expressed for them or by them, presents itself. The problem is this: In precisely what manner will or should modern medicine, in which the characteristic note is group practice, influence the hospital planning of the future?

Modern or cooperative medicine predicates the general as against the special hospital. From the standpoint of group practice, the special hospital is not a hospital at all; it is only part of a hospital, a limping thing deprived of essential members, and needing the support of crutches. Cooperative medicine not only demands the general hospital rather than a group of unrelated special hospitals, but it brings to the front, as one of its essential elements, the diagnostic clinic.

It is now a generation or more since the *pavilion hospital* was created—created for quite different reasons from those which dominate modern medicine. The designer of the pavilion hospital sought to produce a hygienic unit, as hospital hygiene was then understood; his object was to prevent the spread of epidemic diseases among the entire population of the hospital. Infection was believed to be air borne; hence each ward was conceived as an island surrounded, for safety, by a sea of air. The greater the distance between groups of patients, in the several wards, the greater the presumptive margin of safety. With the introduction and application of the principle of asepsis in both medical and surgical practice, the pressing need for the pavilion hospital disappeared, but in Great Britain, Denmark, France, Italy, Germany, and Austria, spectacular pavilion hospitals had been produced which, with their spacious grandeur and in their beautiful settings of park and garden, captivated the world. America, just emerging from its isolation, with its hospital system but poorly developed, with its hospital thought not yet crystallized, and with its well-known weakness for foreign models, began to imitate the pavilion hospital at the very moment when the need for such hospitals had disappeared.

In 1870 or 1880, the widest separation of groups of patients from each other was advantageous. Today such separation, if carried to extremes, interferes with the unity, completeness, and efficiency of medical work. The argument against the pavilion hospital is no longer merely that it necessitates the construction of a basement and a roof for each ward; such construction is needlessly expensive, but there are more important issues involved. The pavilion hospital stands for decentralization, and modern or cooperative medicine is hampered by decentralization. If the pathological laboratory is one-sixth or one-eighth of a mile away from a given ward or group of wards, it will not be visited by the physicians and surgeons in attendance on those wards as frequently as it should be. Under such conditions, the diagnostic aid which the laboratory affords will not be fully utilized. Contact between men working at the bedside and men working at the microscope, contact between clinician and radiologist, between visiting physicians and visiting surgeons, between internists and general surgeons on the one hand and specialists on the other, between the visiting staff and the admitting physician, between the house staff and the social service office, are all fundamental necessities of modern practice, and such contacts are hampered and hindered in the type of hospital which, whenever they have had an opportunity to do so, many hospital architects in this country have striven to adapt from European models. If wisdom prevails, the next ten years will witness a movement in quite another direction.

At this point it seems proper to introduce a word of warning. In the literature of hospital planning, the antithesis of the pavilion hospital is the *block hospital.* It is not the purpose of the present writer to advocate a return to the block hospital. The conception of the block hospital was accidental, or at best it was based upon the desire for cheapness. The *group hospital* which is here advocated is entirely different in conception and will necessarily be quite different in execution. Modern medicine calls for cooperative or group practice, and it is upon this principle that the hospital planning of the future must rest. The hospital must be logically composed, with due regard for its functioning as an organic whole. Itself the product of a new idea, it must recognize the possibility of the further development of that idea and of the future appearance of newer ideas. In so far as the block hospital is a *closed* plant, while the pavilion hospital is an *open* plant capable of indefinite extension, the pavilion plan is the better of the two. The keynote of the group

hospital, wisely planned, will be facility of intercommunication. Hence, distances must be minimized; and in this respect only, the group hospital bears a certain resemblance to the block hospital, but distances must not be diminished to the point of disregarding the fundamental and essential advantages of sun and air, of modified segregation, and of flexible classification. The group hospital must be one capable of extension, and especially must it be susceptible to convenient and economical modification at many points after the completion of the original structure.

Midway between the pavilion hospital and the block hospital lies the so-called *corridor hospital.* If comparison must be made, the *group hospital* will resemble the corridor hospital more than either of the other standard types. Nevertheless, such is the nature of the idea that the group hospital of the twentieth century is bound to develop characteristics little dreamed of by those who, during the past fifty years, have written in advocacy of the corridor hospital. The motive of the corridor hospital was architectural, while the group hospital is an organic structure.

It has been said that the individual physician can no longer stand alone. It is plain to those who understand the complexities of modern medicine that, standing alone, the physician can no longer render the best possible service, but the physician may enter a hospital as a part of its organization and may still stand alone, unless the scheme of the hospital places him in the right relation to his associates. There must be not one, but many, lines of communication and intercommunication. To lay the tracks upon which group practice can most conveniently move is one of the foremost duties of the hospital architect. This, I think, is the lesson that needs to be learned as the country enters upon a new era of hospital development. It is of importance that the new principle be thoroughly grasped and consciously and intelligently applied by those who have to do with hospital planning, for through the application of this principle the value of hospitals to the community can be enhanced and the development of modern medicine promoted.

THE HEART OF THE HOSPITAL

Need to Make Allowances for Abnormal Conditions in Sick People—Importance of First Impressions Gained by the Patient—How to Extend a True Welcome

By ASA S. BACON, Superintendent of the Presbyterian Hospital, Chicago

WHILE I was riding in a streetcar the other day, two ladies sitting behind me were discussing a relative whom they had been trying to get into a hospital, but who, owing to previous experience in an institution, had flatly refused, saying "she would die first." I know nothing of the circumstances of the case, but there is food for thought for hospital workers in a remark of this kind.

One thing that we should always keep in mind is that the people with whom we deal from day to day are not in normal condition, and that occasionally a patient who is ordinarily of a beautiful disposition is a very disagreeable person while ill. The same is often true of relatives of patients.

I remember we once had a lady in one of our best private rooms, with two special nurses, under care of one of our specialists, who was of this type, and no one could please her. The medicine was all wrong, the food was abominable, the nurses were not trained properly, and finally she refused to allow the intern to enter the room. Complaints came to the superintendent almost daily. The superintendent thereupon approved various delicacies to tempt her appetite; the nurses were extremely kind and patient; the doctor did his full duty, and so did the intern by staying out of the room when she refused to see him, but she finally left the hospital in a fit of temper before the doctor gave permission for her to go. This, of course, is an extreme case, but the "heart of the hospital" finally made itself manifest in this patient, for less than a month after she left the hospital, she wrote a very nice letter to the superintendent, apologizing for the way she had acted, thanking the doctors, nurses, and others for being so kind and patient with her, and referring a friend to us for one of our best rooms. This patient became one of our close friends after she returned home and was in normal condition.

The "heart of the hospital" should not be located in one spot. It should be at the front door where the first impression by the patient is usually gained. If you have office boys, train them to be on the alert to take the newcomer's grip or offer to do something for him as soon as he steps inside the door. The girl at the information desk should greet him with a smile and an evident willingness to assist. Do not let the patient stand

around waiting; make him comfortable in an easy chair until the details of admissions are taken care of. The nurse and doctor in the examining room should tenderly examine the patient. The clerk should carefully and patiently assist in selecting accommodations. The same careful, painstaking service should be given throughout the illness of the patient.

One of the principal departments in the hospital and one where the "heart" almost centers is in the telephone operator. This is one place to which the superintendent needs to devote a great deal of attention. I called up five hospitals the other day, and in each case I waited from one-half to three minutes for an answer. Three minutes to an anxious relative or to a sick man may seem like an hour. A human life may be lost through the laxness of an operator. She should be quick, accurate, and on the alert at all times. Every hospital should be equipped with a switchboard and plenty of telephones, placed in proper places, for without them no hospital can give proper service. These means of communication are the "arteries" of the hospital.

Not only should the "heart" be in the superintendent, but it must be in all his assistants—at the front door, at the information desk, the office, the telephone, the wards, the operating rooms,—in fact, in the very air the patient breathes.

A few years ago, I had a little Norwegian maid on one of the floors. She could not speak English, but she was bright, active, and eager to learn, so the housekeeper took an interest in her and finally trained her to be a very valuable maid. One day little Lizzie was missing. After a long search, she was found in the emergency room, on her knees beside the bed of a dying woman, trying to comfort her by gently stroking her cheeks and hands. Little Lizzie could not speak English. She was only a maid, but she had the "heart of the hospital." It is this kind of a "heart" that every hospital needs.

HOW AMERICAN NURSES HELPED WIN THE WAR

Red Cross Enrollment Increases 50 Per Cent—Survey Records Nursing Power of Country—Home Nurses Respond Nobly to Influenza Epidemic and Other Emergencies—Superiority of American Nurses Now Recognized in Every Part of World

By JANE A. DELANO, Director Department of Nursing, American Red Cross

IN summing up the work that has been accomplished by American nurses during the past year, the big fact, the one that stands out with the greatest force, is the quick response of the nurses when the need for their services was clearly presented to them.

That there are not enough nurses to care for our sick and wounded soldiers—that the Surgeon-General has found it expedient to accept partially trained women to assist the nurses who are now in the service of their country—does not in any way detract from the merit of more than 32,000 trained nurses who have enrolled with the Red Cross and have declared themselves ready and waiting for service in military establishments, in public health work as Home Defense nurses, or in any other field where they may be needed. More than 19,000 of this number have been assigned to active duty with the army, the navy, the public health service, or directly under the auspices of the American Red Cross. Approximately half this number are serving in military and civilian establishments in Europe and half in the United States in the cantonments, convalescent and marine hospitals, and special hospitals for contagious diseases.

In January, 1918, the total enrollment of nurses in the Red Cross was 16,215, or double the number enrolled in April, 1917, when this country entered the war.

In June, 1918, a definite campaign to secure 25,000 graduate nurses for the army and 2,000 for the navy and American Red Cross was undertaken by the Red Cross at the requests of the Surgeons-General of the Army, Navy and Federal Public Health Service. It was estimated, also, that if the war continued on its current scale 50,000 graduate nurses would be required by July, 1919. As a result of this special effort, when the needs of the country were presented to the nurses with the force that existing conditions made imperative, enrollments increased until reports showed an average of over 2,000 graduate nurses per month enrolling in the "battalion of life," either for service in this country or abroad.

Early in August, an intensive drive was made to secure 1,000 nurses a week for eight weeks at the request of the Surgeon-General of the Army to meet pressing, immediate needs.

The problem of meeting the needs of the military and civilian populations has taxed the limited nursing resources of the country to the

utmost. It was not thought wise to withdraw nurses for military service in such large numbers that home communities would be dangerously affected, and the problem of equitable and just distribution has been made a matter of careful study.

As the shortage of nurses grew, it became obvious that the most logical thing to do was to make a survey of the nursing resources of the entire country, so that there should be no waste of material and that every woman with nursing training, whether as an attendant, a practical nurse, a nurse's aid, or one who possessed nursing knowledge to any degree, could be used to the best possible advantage, to take the places of graduate nurses and release larger numbers for active duty. The nurses were asked to cooperate in this survey and rendered very valuable assistance. This plan was put into action, and it is hoped that the survey will be so complete as to details that it will serve as a source book for future emergencies, whether of war or of peace.

The increasing appeals for nurses that have come from all sides have shown the wisdom of this course. Requests for nurses have come from the army, from the navy, from the French military hospitals, where the need for nurses is said to be desperate, from the convalescent hospitals back of the lines that must help to make our boys whole again, from our cantonments in this country, and from the 100,000,000 civilians who need care here at home.

That the nurses in France realize the privilege that is theirs to fight where our boys are fighting, and to die, if necessary, as they are dying, for the common cause of a world, is shown by the spirit in which they have met the unavoidable hardships and trials of war; and that the nurses who are doing their share here at home realize the importance of their work in the scheme of things, is indicated by the splendid stand they have made all along the line of home defense. Their work in the epidemic of Spanish influenza that swept with such appalling results over the country this past fall, carrying off almost as many people as the mowing guns in France, has brought lasting credit to the spirit of American women that helped so largely in winning the war.

The influenza epidemic offered a most striking opportunity for watching the nurses of the country get into quick action through the machinery of the Department of Nursing of the American Red Cross. Several hours after the first call for nurses reached Red Cross national headquarters, fifteen nurses were on their way to the quarantine station in the Boston Harbor, whence the first request came. Reports, by no means complete, show thousands of nurses assigned to duty during the epidemic. In the Central Division alone, more than 900 nurses and nurses' aids responded and were assigned to duty, 207 of these being sent to Camp Dodge alone. The high quality of patriotism displayed by the nurses all over the country in responding to the need is worthy of the highest praise. Many of them made the supreme sacrifice of their lives in fighting the epidemic quite as unselfishly as our soldiers are giving theirs in France.

The Home Defense nurses—those not available for active military service—were the first ones called out, because it was hoped that in this way we might avoid using the army nurses who were holding themselves available for foreign service. The splendid teamwork displayed between the Army and Navy Nurse Corps, the Federal Public Health Service, and the American Red Cross is worthy of comment. The general plan for preventing the spread of contagion and the care of the victim, provided for cooperation of the highest order between these three and other relief organizations.

Through its divisions, the Red Cross urged that local problems, as far as possible, be met by the chapters and provided for the utilization of all local nursing resources, such as graduate and undergraduate nurses, nurses' aids, school teachers (if schools were closed), and other volunteers. It also recommended the establishment of local recruiting stations in connection with the chapters to obtain this personnel. The splendid work done by the aids and volunteers during the epidemic deserves the highest praise. It measures up, with no exception, to that accomplished by those serving in Europe directly under the auspices of the Red Cross, who have proved invaluable.

To prevent one state from bidding against the other and from securing nursing personnel at the expense of another community, a standard schedule of prices was approved by the Federal Public Health Service, the Surgeons-General of the Army and Navy, and the American Red Cross. It is to the credit of the nurses of the country, that when the first appeal went out and before any appropriation had been made, over 1,500 nurses responded without inquiry, so far as we know, in regard to the rate of compensation.

American nurses, in the past year, have reacted to many similar calls to meet epidemics of disease and other disaster—for instance, the serious outbreak of typhoid fever at Muscles Shoals, Louisiana, where it was necessary to aid in the control of the epidemic by antityphoid treatment of several thousands of working men employed in a nearby munition plant. In the sudden outbreaks

of meningitis which have occurred at Newport News, Fort Riley, Hattiesburg, Camp Beauregard, and other places, nurses have promptly responded and remained until the danger of an epidemic was past. When an epidemic of typhoid fever in Alexandria, Va., endangered the health both of the increased population of the national Capitol and of the Marine camp at Quantico, nurses were again called into service to aid in the control, under the direction of the Federal Public Health Bureau. The establishment of the sanitary zones around the cantonments created a pressing need for nurses, and since their organization 177 Red Cross nurses have been assigned to duty there.

The work done by visiting public health nurses has been a valuable factor in meeting the abnormal situation produced by the conditions of war. It is noteworthy that in the first nine months of the present year—that is, before the epidemic of Spanish influenza—the Visiting Nurse Society in New York City alone paid 97,646 visits to homes needing nursing services. The Town and Country Nursing Service of the Red Cross, with its enrollment of public nurses on duty in various sections of the country, has also helped to mitigate the sufferings of people living in rural districts and small towns, where often no hospitals exist and where nurses are few and far between. They are serving in the mountain regions of the South, in Texas, and in Arizona; and frequently, with little or no assistance, they care for the health of large sections.

It is interesting to note that today there are American nurses in almost every part of the world—in war-scarred France, of course, where there are not nearly enough nurses to meet the needs, in Greece, Italy, Palestine, the Azores, Japan, China, Korea, the Balkans, Egypt, and many other countries. That their work is being recognized and appreciated is shown by the high honors that all nations are bestowing on them, the croix de guerre, special military mentions, decorations of royal orders, medals for bravery and devotion to duty. The American nurse has been acknowledged the best trained nurse in the world.

The work she has done in her connection with the various European missions sent out by the Red Cross has produced impressive results. American nurses have displayed executive ability that is quite praiseworthy, for, besides organizing the various relief work, they have established classes for the instruction of native women and are introducing sanitary measures that will undoubtedly have a lasting effect on the health of those countries. In France, our nurses have been engaged in every conceivable kind of service, in addition to that done for the military forces. They have worked among the civilian populations, in hospitals for adults and children, in sanatoriums for tuberculosis, in dispensaries, clinics and convalescent houses, and among the refugees. "Nothing is menial that means service" is the attitude with which they work, and it is an attitude which is producing results that will do much to cement international relations into a friendship that will mean permanent world peace.

SUMMARY

The enrollment from January, 1918, to November, 1918, increased more than 50 percent. The survey of the nursing resources of the entire country, it is hoped, will put on file the nursing power of America. In emergencies of all kinds, during the past year, epidemics of disease, munitions explosions, forest fires, and other disasters, the nurses have responded nobly. In the cantonments of the country they have helped to maintain the morale and physical fitness of the army, while, in military establishments abroad, American nurses have made for themselves a reputation that acknowledges them the best trained nurses in the world.

With the coming of peace, and with the return of 20,000 graduate nurses from military service, it will be possible to take up again the nursing activities which have been more or less interrupted by the insistent needs of war. First on the peace program of the Red Cross will be the further development of our Public Health Nursing and also of our courses in Home Hygiene and Care of the Sick, and Home Dietetics, so that the women of the country may be better prepared to maintain the health of the families and to care for minor illnesses in cases in which graduate nurses are not available. We believe that the experience of the nurses in France and in the cantonment hospitals in this country will have brought to them the realization of the broader opportunities awaiting them along lines of educational and community service and that the experience in public health nursing and relief work which many of them have had in European countries will especially qualify them for this work. It is hoped, therefore, that many nurses about to be released from military duty may be directed into administrative and teaching positions both in schools of nursing and in public health work, thus serving the community rather than the individual.

Give plenty of water. Don't wait until patients ask for it. You can save time by planning periods for serving all patients with water at the same time.—Marie Robertson, R. N., in The Nurse.

THE DICTAPHONE IN THE HOSPITAL

Lack of Appreciation on the Part of Medical Men of the Value of Good Case Histories—How the Dictaphone Helps Solve the Problem

By FRANK E. CHAPMAN, Superintendent Mount Sinai Hospital, Cleveland

PERHAPS one of the greatest bugaboos in the life of a hospital administrator who is attempting to secure for his institution a complete medical history is the fact that the medical staff, both attending and resident, in a great many instances, seem to lack an understanding of what a properly written medical record means to the institution and how such a record can aid not only in the care of the individual patient to whom the record pertains, but in the treatment of future cases of a like nature. By reason of this lack of understanding, they are rather loath to spend as much time as is indicated in the preparation of these records.

It is admitted that, without question, the writing of records in longhand is rather tedious, and at some times, monotonous work, and the thought has often been expressed to me that the individual was interested primarily in taking care of his patients and not in writing records, and that he did not have time to do both.

Recognizing that the dictating machine has meant a wonderful saving in time in commercial work, it seemed to Mount Sinai Hospital that if it could conserve the time of its resident staff by the installation of these machines on the wards, such an installation could not help but react to a betterment of working conditions in the institutions. As a result, sufficient of these machines were purchased to make one available at all times to each member of the resident staff, and a medical stenographer furnished for the specific purpose of writing up these histories. The problem that then confronted us was that of educating both the attending and the resident staff to use these machines and to use them in a uniform manner, in order that a complete uniform history be secured from each patient.

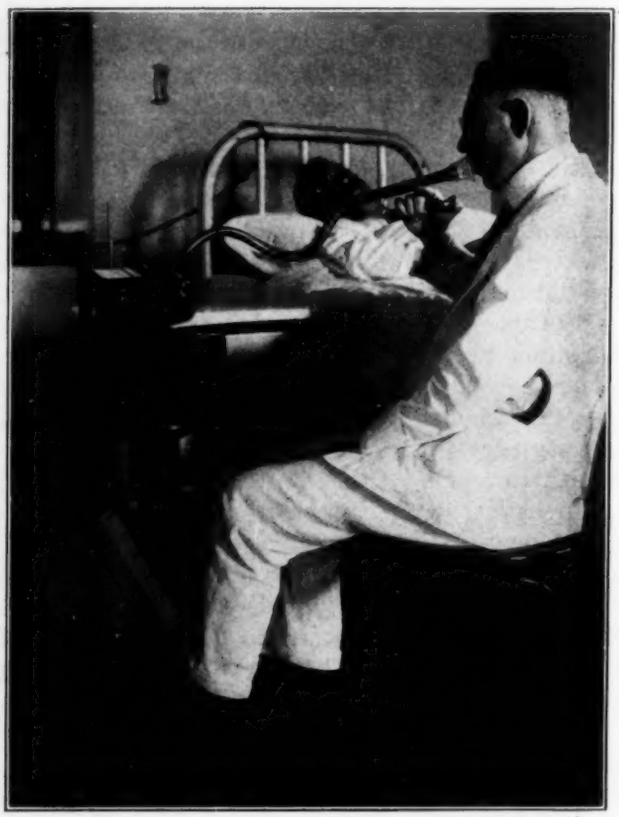
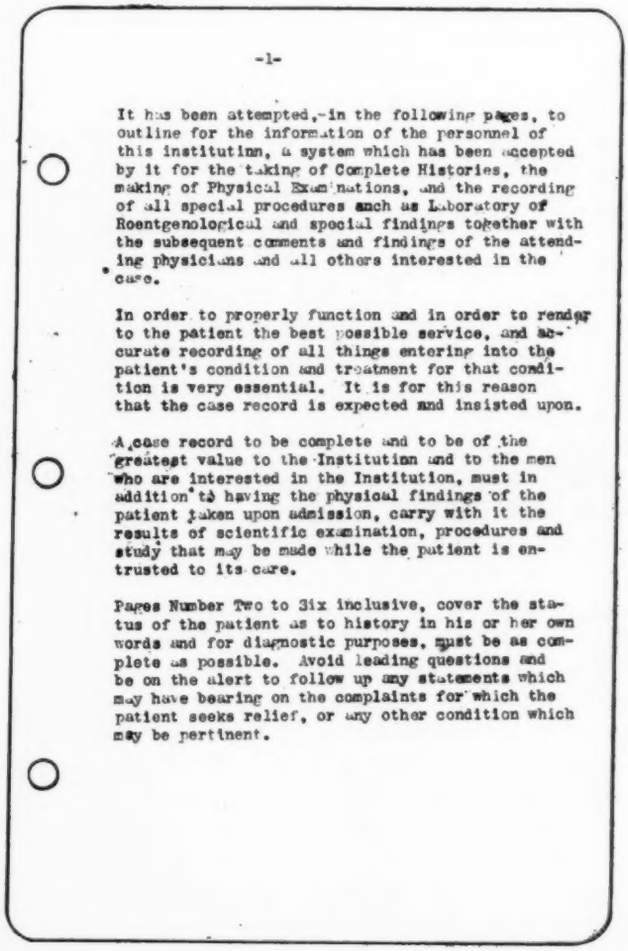


Fig. 1. The dictaphone in use for taking bedside notes.



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It has been attempted, in the following pages, to outline for the information of the personnel of this institution, a system which has been accepted by it for the taking of Complete Histories, the making of Physical Examinations, and the recording of all special procedures such as Laboratory of Roentgenological and special findings together with the subsequent comments and findings of the attending physicians and all others interested in the case.

In order to properly function and in order to render to the patient the best possible service, and accurate recording of all things entering into the patient's condition and treatment for that condition is very essential. It is for this reason that the case record is expected and insisted upon.

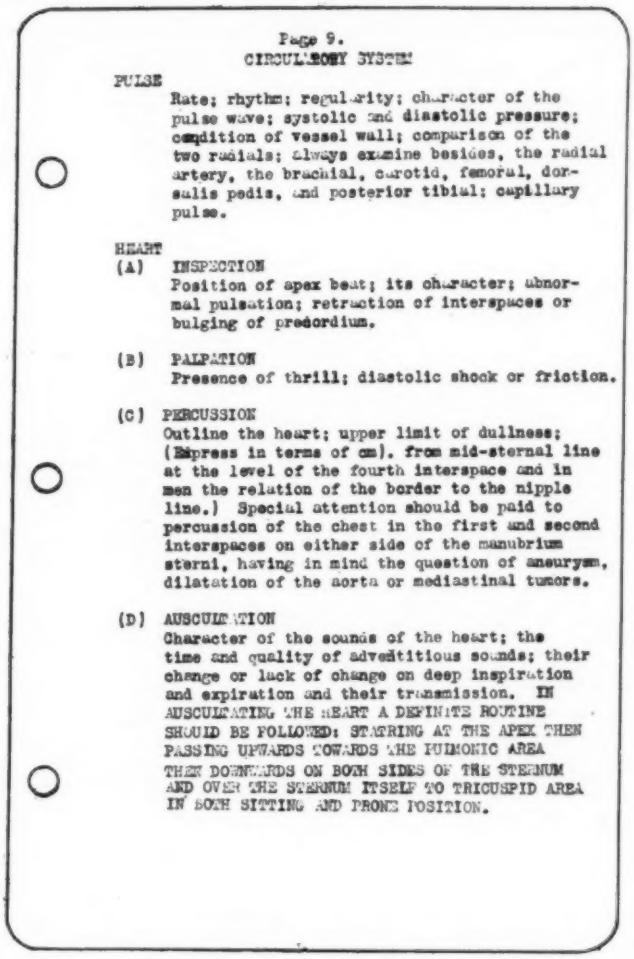
A case record to be complete and to be of the greatest value to the Institution and to the men who are interested in the Institution, must in addition to having the physical findings of the patient taken upon admission, carry with it the results of scientific examination, procedures and study that may be made while the patient is entrusted to its care.

Pages Number Two to Six inclusive, cover the status of the patient as to history in his or her own words and for diagnostic purposes, must be as complete as possible. Avoid leading questions and be on the alert to follow up any statements which may have bearing on the complaints for which the patient seeks relief, or any other condition which may be pertinent.

Fig. 2. One of the loose-leaf sheets, which, incorporated in a binder, are attached to the dictaphone.

A copy of the form of history used in several representative institutions in the country was

secured, and also each member of our staff was asked to submit what he considered pertinent information for the histories. A compilation of all of this information was submitted to the Medical Council, and a form adopted by them as the standard for history-taking at Mount Sinai Hospital. This information was then put on loose-leaf sheets, and a complete set of forms incorporated in a binder and attached on each one of the dictating machines, as illustrated (Fig. 1).



Page 9.
CIRCULATORY SYSTEM

PULSE

Rate; rhythm; regularity; character of the pulse wave; systolic and diastolic pressure; condition of vessel wall; comparison of the two radials; always examine besides, the radial artery, the brachial, carotid, femoral, dorsalis pedis, and posterior tibial; capillary pulse.

HEART

(A) INSPECTION
Position of apex beat; its character; abnormal pulsation; retraction of interspaces or bulging of precordium.

(B) PALPATION
Presence of thrill; diastolic shock or friction.

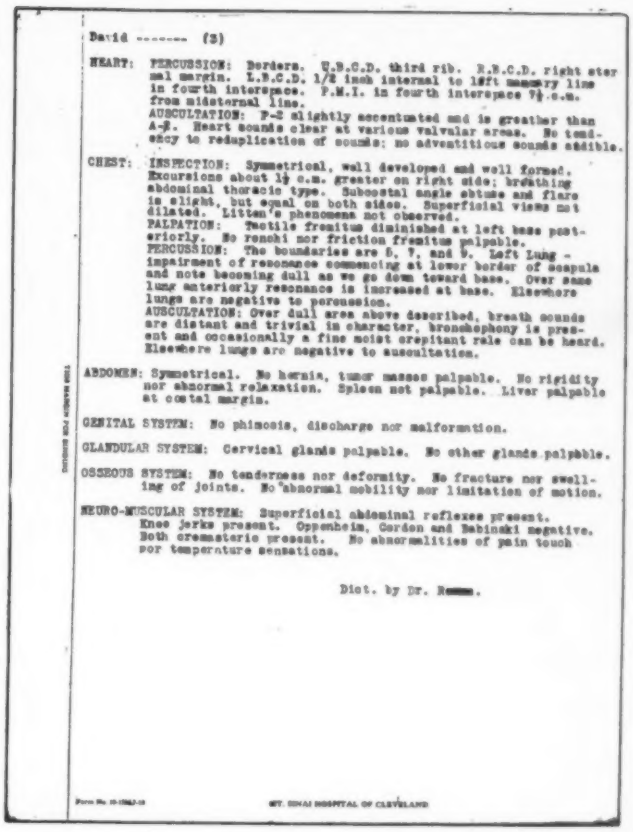
(C) PERCUSSION
Outline the heart; upper limit of dullness; (Express in terms of cm). from mid-sternal line at the level of the fourth interspace and in men the relation of the border to the nipple line.) Special attention should be paid to percussion of the chest in the first and second interspaces on either side of the manubrium sterni, having in mind the question of aneurysm, dilatation of the aorta or mediastinal tumors.

(D) AUSCULTATION
Character of the sounds of the heart; the time and quality of adventitious sounds; their change or lack of change on deep inspiration and expiration and their transmission. IN AUSCULTATING THE HEART A DEFINITE ROUTINE SHOULD BE FOLLOWED: STARTING AT THE APEX THEN PASSING UPWARDS TOWARDS THE PULMONIC AREA THEN DOWNWARDS ON BOTH SIDES OF THE STERNUM AND OVER THE STERNUM ITSELF TO TRICUSPID AREA IN BOTH SITTING AND PRONE POSITION.

Fig. 3. A loose-leaf sheet which has been used by the intern in writing up the history shown in Fig. 4.

Specimen sheets are also shown (Figs. 2 and 3) indicating the manner in which this form was compiled.

In the operating room a dictating machine is available for use in dictating operative notes and post-operative orders between operations. It was at first thought desirable to use the machine in making the regular ward walk and have the attending man dictate progress notes into the machine. But this plan has been abandoned, and instead the interne is obliged to write progress notes in longhand, the remainder of the history being typed.



David ------- (3)

HEART: PERCUSSION: Borders. U.B.C.D. third rib. R.B.C.D. right sternal margin. L.B.C.D. 1/2 inch internal to left mammary line in fourth interspace. F.M.I. in fourth interspace 7½ c.m. from midsternal line.
AUSCULTATION: P-2 slightly accentuated and is greather than A-2. Heart sounds clear at various valvular areas. No tendency to reduplication of sounds; no adventitious sounds audible.

CHEST: INSPECTION: Symmetrical, well developed and well formed. Excursions about 1½ c.m. greater on right side; breathing abdominal thoracic type. Subcostal angle obtuse and flare is slight, but equal on both sides. Superficial veins not dilated. Litten's phenomena not observed.
PALPATION: Tactile fremitus diminished at left base posteriorly. No ronchi nor friction fremitus palpable.
PERCUSSION: The boundaries are 5, 7, and 9. Left Lung - impairment of resonance commencing at lower border of scapula and note becoming dull as we go down toward base. Over same lung anteriorly resonance is increased at base. Elsewhere lungs are negative to percussion.
AUSCULTATION: Over dull area above described, breath sounds are distant and trivial in character, bronchophony is present and occasionally a fine moist crepitant rale can be heard. Elsewhere lungs are negative to auscultation.

ABDOMEN: Symmetrical. No hernia, tumor masses palpable. No rigidity nor abnormal relaxation. Spleen not palpable. Liver palpable at costal margin.

GENITAL SYSTEM: No phimosis, discharge nor malformation.

GLANDULAR SYSTEM: Cervical glands palpable. No other glands palpable.

OSSEOUS SYSTEM: No tenderness nor deformity. No fracture nor swelling of joints. No abnormal mobility nor limitation of motion.

NEURO-MUSCULAR SYSTEM: Superficial abdominal reflexes present. Knee jerks present. Oppenheim, Gordon and Babinski negative. Both cremasteric present. No abnormalities of pain touch nor temperature sensations.

Dict. by Dr. [redacted].

MT. SINAI HOSPITAL OF CLEVELAND

Fig. 4. A specimen page of a history written up from dictaphone records.

That the scheme is successful is evidenced by the type of histories that we are securing. In order to make it successful, it was necessary for the administration to insure that a written history, properly typed, be on the ward within twenty-four hours of the time that it was dictated. The character of the histories that we have secured is much better than was possible under the old scheme. They are more legible by reason of their being typed and, in the opinion of this institution, the expense involved is more than repaid by the decreased efforts necessary to get a complete history, and by the increased character of the histories that we have secured.

The plan is submitted to the hospital world for whatever merit it may possess.

Location of Call Bells and Emergency Lights

It is a mistake on the part of an architect to locate plugs for call bells and emergency lights at the standard height of 4 feet from the floor. They should be above the ordinary hospital bed, as lamps are often inserted directly into the plug, with the result that more than one is broken off when the bed is moved.

We dash ourselves to pieces against our minor difficulties. The energy put into our weakness would, if put into our strength, set us on the pinnacle of greatness.—Stephen Berrien Stanton, "The Hidden Happiness."

THE RECORD SYSTEM AT THE PRESBYTERIAN HOSPITAL

A System Closely Associated with a Terminology of Disease Giving Absolute Uniformity of Record Despite Changes in Staff and Office Force—Success Due to Rigid Enforcement of Rules and Loyal Support

By ADRIAN V. S. LAMBERT, M. D., The Presbyterian Hospital, New York City

THE record system at the Presbyterian Hospital is the result of ten years' experience and the product of the effort and thought of many men. During this time we have adopted freely any portion of other systems which seemed to contain what we desired; it is thus simply a re-arrangement of elements long familiar, and in no sense a new and original conception. We know it is not ideal. It has had to be adapted to the architectural conditions of a set of old buildings. The admitting office, for instance, is widely separated from the record room, thus necessitating a certain reduplication of files and the employment of messengers which materially increase our expenses. For the same reason, the history system of the out-patient department has never been incorporated with that of the indoor service.

The system is so closely associated with the terminology of disease employed that a description of this is not out of place. This terminology was arranged by Dr. Walton Martin and myself some years ago. Two of its features are of vital importance, and are essential for the success of any system of disease classification.

1. The terminology may be used without the aid of an index, as its arrangement is simple and logical, and may be readily learned because all diseases and conditions, whenever possible, are grouped alphabetically according to their etiological factor. Whenever this is not possible, they are grouped under the particular organs or tissues involved.

2. An exact phraseology is stipulated for every condition which one is allowed to use. No new term may be invented or employed without previous knowledge and consent of a committee on clinical records. This last principle is rigidly enforced and has resulted in an absolute uniformity of terms despite the fact that our visiting staff and house staff have undergone constant changes. The fact that the filing is simply a mechanical process has made it possible to employ in the record room clerks whose knowledge of pathology, medicine and surgery has been meager.

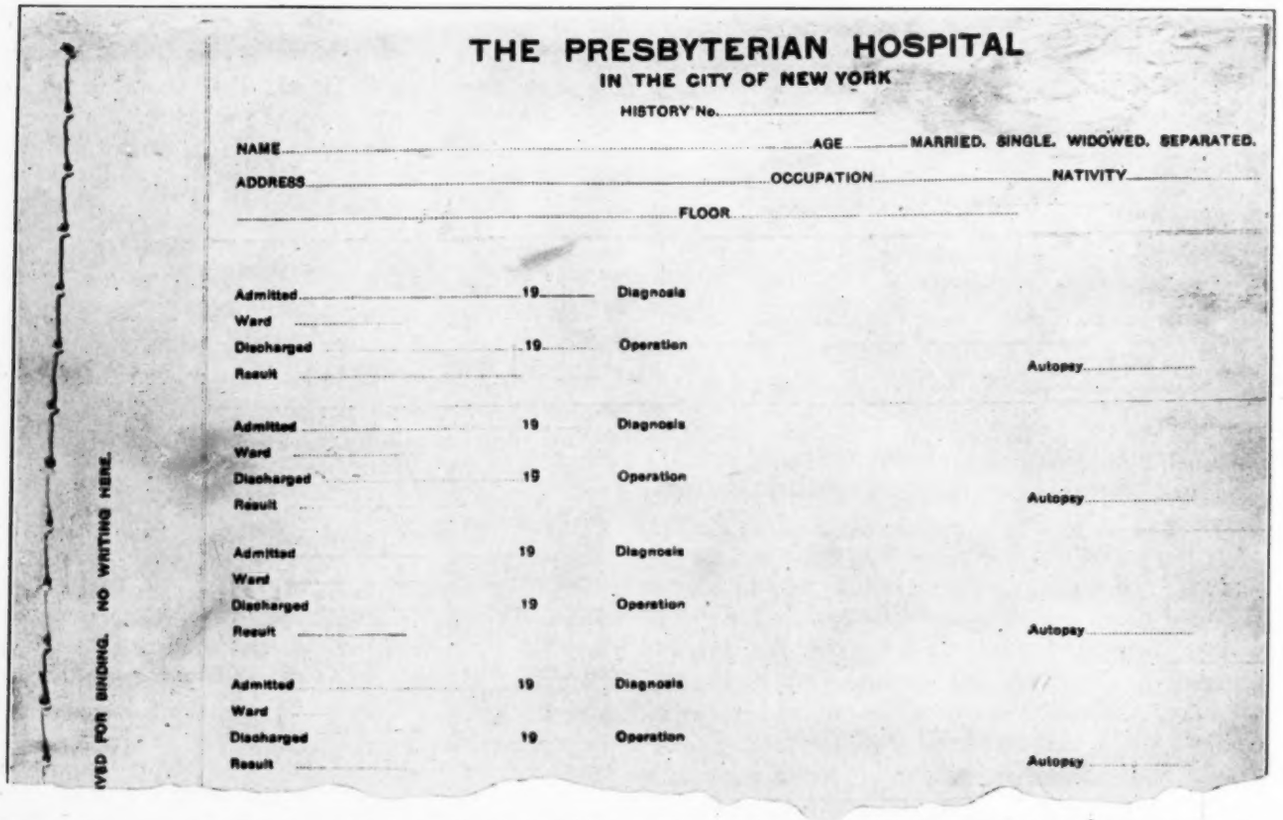

THE PRESBYTERIAN HOSPITAL
IN THE CITY OF NEW YORK
HISTORY No.
NAME AGE MARRIED. SINGLE. WIDOWED. SEPARATED.
ADDRESS OCCUPATION NATIVITY
FLOOR
Admitted 19 Diagnosis
Ward
Discharged 19 Operation
Result Autopsy
Admitted 19 Diagnosis
Ward
Discharged 19 Operation
Result Autopsy
Admitted 19 Diagnosis
Ward
Discharged 19 Operation
Result Autopsy
Admitted 19 Diagnosis
Ward
Discharged 19 Operation
Result Autopsy
IVED FOR BINDING. NO WRITING HERE.

Fig. 1. Loose pages of patient's record sewn together to form history. Note that front page has spaces provided for subsequent admissions. Actual size, 9½ by 12 inches.

This identity of terms assures us that histories of patients suffering from the same disease will always be filed together; and a change of clerks has not been a serious matter.

The system of binding the histories differs somewhat from that usually employed, and it has been the direct cause of an awakened interest in the records by all concerned. I wish to explain the mechanical details of the process before going on to the filing system proper. The loose leaves which compose the history or record of a patient's stay in the hospital are sent on his discharge to the record room. A clerk arranges them in a prescribed order and stitches them together on a sewing machine along the left-hand margin (Fig. 1). These are then glued into a cardboard cover provided with a linen back. Each history has its own separate cover and is filed in consecutive number on the shelves until wanted.

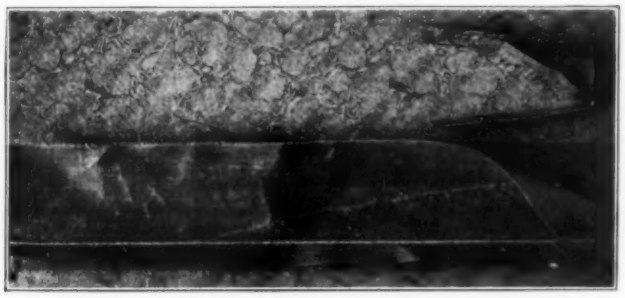


Fig. 2. Cardboard covers with linen back and extra strip of linen for insertion of history between its opposing surfaces, which are covered with glue. Below is shown cross-section. The entire extent of the cover is not shown. Actual length, 12 inches.

The construction of the cover is of interest. It is composed of two substantial pieces of cardboard of appropriate size to correspond to the size of the history sheet, united at the back by a strip of stout linen one inch wide. On the inside of this linen back and along its attachment to one of the covers is stitched a second strip of linen one inch wide. The stitching passes along its center and thus forms a double flyleaf, the inner or opposing surfaces of which are covered with glue (Fig. 2). The history is inserted between these flyleaves and fastened by the glue to the cover (Fig. 3). This method of binding histories so that each constitutes a separate volume allows additional facts to be added from time to time, either on subsequent admissions to the hospital or as follow-up notes. As the history comes to be a "permanent ever-increasing record of an individual" in his or her relationship to the hospital as a patient, it has been termed a unit history or the unit history system. If the individual is subsequently taken care of by the institution, any notes made at these times are added by a special form of tape to the back of the original record (Fig. 4). This applies whether the patient is admitted

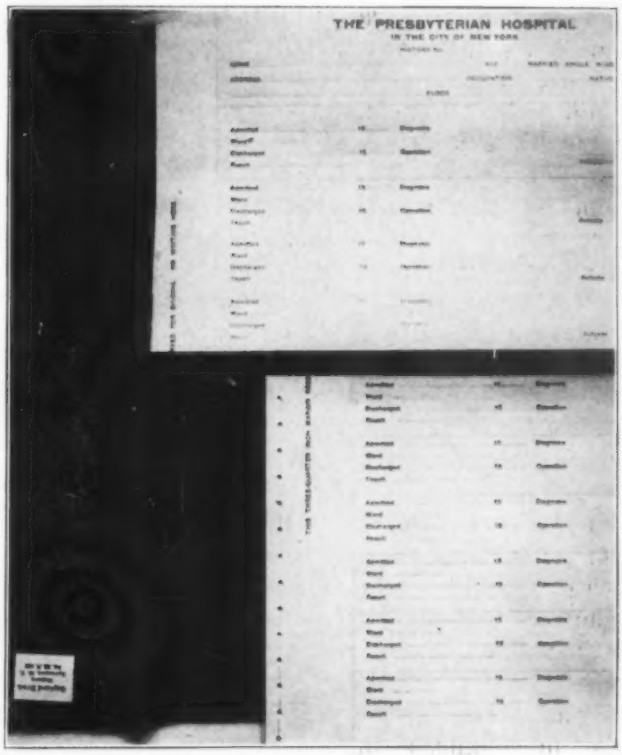


Fig. 3. The history has been cut in half, and above it is shown inserted between the gummed fly-leaf at back of cover. Below is shown the remainder of the fly-leaf and a portion of the history sheet which has been cut off.

to the same service or on some other service, whether in the wards, the dispensary or follow-up. The advantages from this have been many. The greatest of these is to the patient, who has a record of his illness kept over a long period of time and made so available that it is constantly used by his physicians, however often they may change. It gives to this class of patient some of the benefits which those enjoy who have their own family physician. In addition, the data are accurately kept, for each man, in making notes, knows that his work will be constantly reviewed by his confrères, who will make use of it—and this, too, at an early date. There is a saving of time, as no copying has to be done and no long summaries have to be made.

The routine of admission and discharge is as follows: A new patient receives an admission number, which is his history number. A bedside card and front page of his history, properly filled out by the entry clerk who enters on them his admission number, name, address and certain other data, are sent to the ward with him. While the patient remains in the hospital, this front page is kept with any notes made of his case, and on his discharge is sent with the other pages of his record to the record room to be bound as a history. In the case of an individual who has been a patient previously, the same routine is followed except that he receives his old number which he

received on the occasion of his former admission, and his unit history is sent to the ward from the record room instead of a new front page. This unit history remains in the ward until his discharge, when it is sent back to the record room, together with any new pages containing notes and data of his stay in the hospital. These latter are then stitched together and added to the unit history (Fig. 5).

The front page of the history is peculiar. It contains, at the top, spaces for history number, patient's name, address, civil condition, nativity and occupation. Beneath these are arranged, one below the other, ten spaces for ten possible subsequent admissions to the hospital. These spaces contain date of admission and discharge, result on discharge, diagnosis, operation, and a notation as to whether an autopsy was performed or not (Fig. 1). Each time a patient is discharged from the hospital, the proper dates, diagnoses, and other data are entered on this sheet in one of these spaces. On discharge, the bedside card is signed by the proper house officer, who enters on it the diagnosis and result of treatment. This card is then sent with the patient to the superintendent's office, where any data desired are copied from it, after which it goes to the record room to be filed under an alphabetical list of names which serves as a permanent name file in the record room.

The diagnosis file has a set of main guides for each etiological factor and each organ and tissue. These are grouped under the different systems. Behind these main guides are secondary ones for each separate diagnosis.

We have abandoned the division of conditions into principal disease and complications. Where there is more than one condition present we consider each one of equal importance and enter it in the file on the white card for that condition and file it behind the proper guide. At the same time,

Fig. 4. Special tape composed of two strips of linen stitched back to back, the faces of which are covered with glue, one for attachment to new additions to history, and the other for attachment to cover back of old history.

all other conditions present as part of the diagnosis are entered on blue cards (Fig. 6) and placed behind the white card and its guide and are designated as accompanying conditions. We thus have every diagnosis filed in its proper place and completely cross-referenced.

The file is intended simply as a means to gather together the histories of similar conditions, and it is left to any one, by an intelligent perusal of those histories, to determine the exact role which the condition may have played in any particular case, instead of leaving this decision to a member of the house staff or a record clerk.

We have at the hospital a system of follow-up by which each member of the visiting staff spends one morning a week in personally examining and interviewing his old cases who have returned for this purpose. He has the unit history before him for reference and dictates notes to a clerk who enters them in the history. At each visit the physician designates the result of the treatment at the time of examination. These interval re-

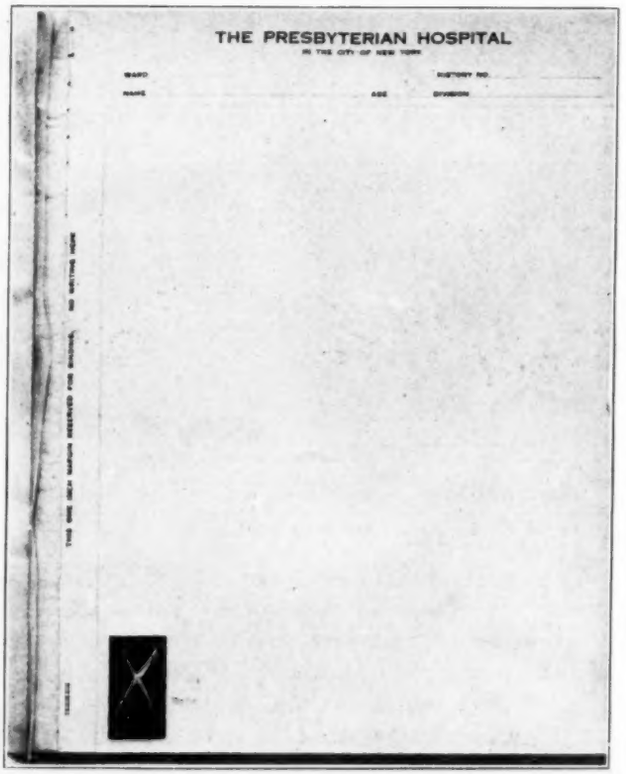


Fig. 5. Additional notes made on the occasion of a subsequent stay of the patient in the hospital. Note the tape fastened along the left margin, ready for insertion into former record. A cross-section of this tape is shown as insert on lower left corner.

sults are divided under three headings, anatomic, symptomatic, and economic. The degree of excellence is designated under each heading by the numbers 0, 1, 2, 3, and 4, where 0 represents a failure and 4, a perfect result.

The use of numbers to represent degrees of excellence in results are more satisfactory than terms, such as "cured," "improved," "unimproved." The abuse of the term "cured," which has arisen in so many hospitals, is a real evil. It has been the chief cause of the worthlessness from a scientific standpoint of the many pages, representing hours of labor, of vital statistics in the numerous hospital annual reports. To take only one condition, for example, of the many

are "cured" by all our hospitals, one would imagine that the cure of cancer was an every day occurrence, judging from some of the reports submitted.

When the histories are returned to the record room, the record clerk places in the diagnosis file, after the proper diagnosis, a guide, marked with the length of time after discharge that the ex-

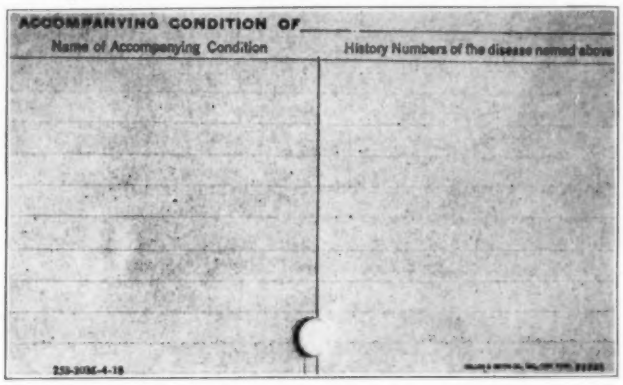


Fig. 6. Blue card for cross-reference of cases in which there is more than one condition present.

amination has been made, and enters on a card the history number and interval result, represented by numbers 0 to 4, and files it back of this guide. By these means we can at any time ascertain the results in any group of cases for any desired length of time with a very certain degree of accuracy.

A committee composed of a member of the visiting staff from each of the several services manages the record room. A set of rules governing the various details is in force. The system has worked well because the men at the head of affairs have taken an interest in it and have lived up to the rules. No system can be a success if the men in charge of the patients claim exemption from the exactions of a rigid set of regulations and attempt to hold their assistants responsible for their enforcement. To set aside some inaccessible place in a building, to fill it full of large unwieldy volumes of bound histories, to open it a few hours a day, and to place it in charge of some inadequate clerk costs little, but is time and effort wasted. A record room, to be in any sense adequate, must be a costly part of our hospital budget, requiring a good-sized clerical force to make it an up-to-date efficient department of the institution. The managers of the hospitals should be brought to realize that it is money well spent, because a well-run record room results in an improved morale of the house staff and stimulates the visiting staff to a keener interest in all phases of their work, a result beneficial not only to the hospital, but to the patient as well.

Abstract of Discussion

DR. R. J. WILSON, New York: Dr. Lambert states that in records of results 1, 2, 3 and 4 are code numbers; a partial success, as I understand, would be 1, 2, or 3, while a perfect result would be 4. In the Department of Health's hospital in the City of New York we abandoned code numbers years ago. We think it is easier to write in "cured," "improved," "partially improved," or whatever your code number stands for, so that twenty years afterward, when your cumulative evidence is being examined, some person with the wrong interpretation of numbers won't spoil the whole thing by giving evidence which is not what your history intended it to be. Code numbers in any form of history keeping are a mistake, if you can find a short and good word to take the place of the number.

MR. F. E. CHAPMAN, Cleveland: It is rather presumptuous for me to criticize the Presbyterian records, because I am just a scrub layman, but I would like to point out one or two defects in Dr. Lambert's system. In the first place, when he permits his primary admission to go back to the ward, there is a grave possibility of losing that history. We have attempted to get away from that by a summary of the previous admission. Dr. Lambert says that that takes time. That is true, but the summary gives the reference of the initial history much better, and much better control of it. Also I can't understand how Dr. Lambert files his second history—his second admission to the hospital. He said that he gives his initial history a number. Now, what do you give your second admission—the same number over a period of ten years?

DR. LAMBERT: Yes.

MR. CHAPMAN: Well then, how do you keep a record of your admissions? Do you also use a discharge number?

DR. LAMBERT: No.

MR. CHAPMAN: We have felt that there are two reasons for the keeping of a history—first of all, to keep a record of the performance for the patient; secondly, to give the doctors facility for studying diseases, and instead of filing as Dr. Lambert has filed, we have filed on the basis of an index. In other words, all of our primary conditions of typhoid are filed together and so on, so that if we want to find all the histories with a primary condition of any given disease we simply go to file No. 1 or file No. 7, as it may be, and take them out. Dr. Lambert says he accomplishes that by his index, but we accomplish it with the actual history.

As Dr. Lambert says, you can not put the responsibility of keeping records on your intern and have perfect records. You have to put it straight up to your attending man and then check that attending man and see that he does not procrastinate if you are going to get any kind of a record at all.

DR. A. R. WARNER, Cleveland: At Lakeside we have adopted practically all of the Presbyterian system for several years, and I have made one special trip down there to go over it again in the past year. There is one point about it, however, that was confusing to me, and may be confusing to others, and I spent some thought on the number under which the history should be filed. It is obviously correct to file by number. The only point is, what shall the number be? Formerly we filed under the discharge numbers at Lakeside. That was wrong. The admission number has certain advantages. It is desirable that the number of a patient be known immediately when the patient comes into the hospital; otherwise, that patient will have dozens of numbers, from a lab-

oratory number to an autopsy number, tacked to him before he gets out of the hospital, and you can't paste his many scattered records together anywhere. Therefore, we adopted the system of filing under the admission number. The admission numbers represent accurately the admissions for the year—the number at the beginning of the year and the number at the end of the year will tell you immediately just what admissions you have had during the year. It may be, or may not be, an advantage. The main advantage, however, is the fact that the number of that patient, which will forever remain the number of that record, is known when the patient comes in, and it goes to the ward with the patient on his admission card. It immediately goes on every record that is made and is never lost.

Now, on return patients we differ from the Presbyterian Hospital system—that is, if a patient enters Lakeside the second time, he is given a new number and the old record is brought to the new number. In the receptacle (we use an envelope in place of a folder) is placed a blank showing the essentials of the history, name, diagnosis, etc., and on the outside and inside both we put the new number to which that history is carried. It is no different from the Presbyterian system, except they carry the numbers back and we carry them forward.

DR. LAMBERT: I will take the questions up in order—first, the question of using numbers for results. The decision to use numbers was largely in order to get away from the use of just that word which was brought up here—the word "cured." To us, that has been a red rag. To discharge as "cured" a patient who has been operated on for carcinoma and then to have him return within the memory of every man in the hospital and die from that disease, seemed wrong. The managers wished to retain that word. It reads well in a report—particularly in a report that goes out to a sympathetic public for financial support. If you can show that everyone was cured, it must be a hospital worth giving to—that is the only conclusion—you are doing a great work. There is for the use of the doctors a card on which those numbers are written and opposite the numbers are terms, not in a single word, but in a brief explanation of what each number means. Zero means a complete failure—treatment has not alleviated the patient's distress; 4 means a complete cure—the patient himself says that he is as well as he was before.

The history number is the admission number, and the superintendent's office or the entry clerk keeps an independent record, independent of these numbers, for each year, as to how many patients are admitted during that year. That history number is for the use of the hospital record and not for the use of the hospital statistics, and we have sacrificed possibly a little clerical work in order to obtain a number which applies to that man's record, no matter when and how often he comes in.

Now, we file our histories by consecutive numbers, and we keep a visible index in the record room of where each history goes, one for each ward. If a history is sent to that ward, a card is put in that visible index with the number of that history on it. The advantage of filing of consecutive numbers is this: that any history out of its place or missing is a history to be accounted for, for if it isn't on the visible index it is lost or misplaced. Any unit history system is liable to have a history misplaced—that's one of the evils of it. Now, the advantage of filing them according to consecutive number and not according to diagnosis, I think, is a real one. The difficulty, it seems to me, of filing histories according to diagnosis of the chief diseases is that you get a lot of typhoid fevers together, a lot of pneumonias together, and a lot of appendicitis cases together, and that arrangement is ideal for the man who wants to study typhoid fever, pneumonia, or appendicitis. But, supposing a man wants to study complicating conditions, he has to go over the whole lot, picking out of this group and that group in order to reassemble his diseases; and, more than that, he has to put them all back into those different groups again, and what one man might consider as a principal or chief disease in a case, another man might not. Suppose a patient comes in with appendicitis and is operated on for that disease but dies of pneumonia. Now, which is the principal disease, what was he operated on for, or what did he die of? Where are you going to classify it? The opinion of the classifier at the time may not be the opinion of the man who wants to use that history to consult it from a scientific standpoint.

I think the method used at Lakeside of having a universal number for everything connected with the patient—pathological specimen, x-ray, history, or whatever it may be—is ideal.

MISS ANDERSON: In the hospital I represent we take care of a limited number of obstetrical patients. I would like to know how you classify the babies. One patient comes in and two go out. Do you enter the baby with a new number and make a patient of him? Do you carry out your record and call it medical, surgical, or obstetrical? Do you classify the baby as free or partly free? The parent is paying, perhaps, for a high-priced private room. And there are a number of other complications on that one question. Do you charge the day a patient comes and the day he goes—or do you charge, as we do, the day he comes and not the day he goes? Your bookkeeping doesn't correspond with your number of patients.

DR. LAMBERT: It has always seemed to me that we are too prone to feel that the patient in a hospital represents a mouth to be fed. Because the baby doesn't happen to have any of the prescribed diets in the hospital, it doesn't mean necessarily that we aren't taking care of him, and we enter him as a patient in just the same way as we enter any other individual who is taken care of by the nurses and the doctors as a patient, whether he eats or whether he doesn't eat, whether he is sick or whether he has been admitted for observation only. The charge for such babies I would have to leave to my superintendent.

MR. CHAPMAN: Miss Anderson said that one patient is admitted and two are discharged. When that baby comes into the world it is admitted, and, if you are going to discharge it as a patient, you certainly have to admit it as a patient. I think the policy of whether or not you shall charge for that baby is dependent upon your local conditions. Some institutions charge the same for a baby as they do for another patient. Some charge $1.50 per day. Our institution makes no charge for the infant.

A MEMBER: How much of the record, bedside notes, etc., does the Presbyterian Hospital eliminate when filing records after the patient is discharged, or do you eliminate anything?

DR. LAMBERT: We have been in the habit of binding everything—all the nurses' notes and any other data that might come in with the patient, including any letter from the doctor who has sent the patient, recommending him, or anyhing of that kind.

A MEMBER: What would you do with all the records you have if you carried them very long? We find the keeping of all these records is a useless expense.

DR. LAMBERT: To obviate losing something that might be of interest, we file away a good deal of unnecessary paper.

INFLUENZA IN THE SHIPYARDS

Temporary Hospital Facilities Provided at Government Expense to Shipyard Employees—Every Possible Preventive Measure Used by Army Officials—Course Taken by Disease in its Spread Throughout Country—How Spirit of Cooperation Helped

By LIEUT.-COL. PHILIP SCHUYLER DOANE, Medical Corps, United States Army, Former Director of Health and Sanitation, United States Shipping Board Emergency Fleet Corporation, Philadelphia.

THE United States Shipping Board Emergency Fleet Corporation has had more or less jurisdiction over 171 shipyards located on the coast lines and in the Great Lakes region, where varying climatic conditions prevail. In these yards there has been employed an army of over a half million men, all working under great stress to construct our much needed ships.

To carry on this emergency shipbuilding program, it has been necessary to give the shipbuilder every safeguard in the protection of his health in order to enable him to keep at his work with unusual energy and spirit.

These men were engaged in both day and night shifts. Fortunately, their work was very much in the open and in localities free from the dangers of the congested city life. This open-air existence was carried on only during working hours, however, as the men invariably had to return to their congested living quarters at night. But the living congestion was being rapidly improved by the many housing projects carried on by the shipping board.

A serious epidemic of so-called "Spanish influenza" first made its appearance at the Fore River shipyard, located in Quincy, Mass., just outside the city of Boston, which was doing very important work for both the Shipping Board and the Navy. Most of the employees lived in Boston and undoubtedly contracted the disease in that city. It spread terror among the men and their families, many of whom were unable to secure medical attention of any kind.

Careful investigation revealed the fact that over 50 percent of absentees were remaining away from work, either in fear of contracting the disease or because of the necessity of caring for a sick member of their family.

The hospitals of Boston and Quincy were unable to care for the civilian population, and it at once became apparent that hospital facilities must be provided for the shipyard worker. With the same energy that characterized the building of ships, temporary hospital facilities were provided, nurses secured, and medical attention given both to the sick men and the members of their families.

At the same time, very active measures were taken to prevent, as far as possible, any further spread of the disease. Every sick employee was obliged to report immediately to the attending physician, who either sent him to the hospital for isolation or returned him to his home for observation. Hygienic conditions in the yard were given very careful attention, disinfection being overdone rather than otherwise. The common drinking cup was absolutely abolished, and all eating utensils were carefully sterilized. Offices, sleeping quarters, lockers, bathrooms, and toilets were disinfected, and telephone mouthpieces were swabbed out daily with a 50 percent solution of formaldehyde and liquor cresolis.

This was the first shipyard affected, and the work of creating a temporary hospital which gave free treatment to the yard employees established a precedent which was maintained by the Emergency Fleet Corporation throughout the country.

Although very seriously affected, the Fore River shipyard was not obliged to close its gates.

From Boston the influenza spread westward to the Delaware River region and northeastward along the coast line. Observation revealed the fact that those cities which were classed as not highly sanitary were the ones most seriously affected. At Bath, Me., where war industries had caused a marked congestion during the past two years, the epidemic was very serious. In every city where the shipyard worker did not obtain ordinary hospital facilities, we established temporary hospitals, either in buildings of our own or in suitable structures taken over for the purpose.

We soon learned that hospital accommodations must be adequate enough to give more than the ordinary allotted bed-space, that the pneumonic type of patient must be separated from the simpler variety, and that the beds must be partitioned off in such a way as to screen one patient from another. We learned that free ventilation and abundant sunlight were very necessary. Partitions between beds were made by using compo board, which was carried to a height of at least 6 feet.

The advisability of establishing these hospitals was soon very apparent. The mortality rate in the private home of the employee was much greater than that among those who were cared for in the temporary hospitals, and this fact proved a strong argument in favor of establishing these hospitals in various parts of the country before the epidemic reached them.

Along the banks of the Delaware River the very important and large shipyards of the corporation were located. The epidemic appeared in Philadelphia in its most virulent form, the streptococcic type being most prevalent. From Philadelphia the epidemic spread to the nearby shipyards, creating the fear that many of the yards would have to close down for an indefinite period.

At Hog Island, where over 30,000 men were employed, the disease at first made but slight progress. At this time a prophylactic vaccine was being employed and was at first believed to be most efficient. Its efficiency, however, was but short-lived, as the epidemic eventually affected the workers in this yard quite as badly as in all others. Fortunately, temporary hospital accommodations were adequate and immediately available.

At Chester, Pa., some fourteen miles from Philadelphia, there are located two important shipyards. Because of the shipyards and other war industries, this city has increased in population from 38,000 to 125,000 within the past two years, an increase which has caused grossly insanitary conditions. The epidemic developed in this city to an alarming extent, and it was impossible to give our sick any hospital accommodations in the already too small institutions. On the outskirts of Chester is located the state quarantine station, which, because of the war, was not in service. With its usual splendid spirit of cooperation, the Commonwealth of Pennsylvania acceded to our request, turning over buildings for the accommodation of some six hundred patients.

Nurses and medical attendants were secured from every available source, the Red Cross rendering most valuable assistance, while senior medical students were loaned to us to serve on the house staff. At this particular hospital the local staff speedily organized and equipped an institution which was of great credit and did most heroic work.

In the city of Chester, the First Regiment Armory and Odd Fellows Hall were both made into hospitals in which the shipyard worker and his family were given treatment.

In the city of Philadelphia are located the offices of the Emergency Fleet Corporation, where about five thousand persons are employed, many of whom were strangers in the city. Here, as elsewhere, the same difficulty was found in securing medical attention of any kind, and the local hospitals were soon filled.

The Fleet Corporation was compelled to establish a hospital of its own, which was placed under the control of the Department of Health and Sanitation.

Study of the cases cared for in this hospital verified the fact that the majority of the cases were complicated by a streptococcic infection. Their treatment was more or less symptomatic, combined with a routine use of large doses of sodium salicylate, normal salt solution enemata, and judicious stimulation. The use of coal-tar products and aspirin had been freely advised in the public press, and we feel that this publicity was responsible for many serious cardiac cases which were admitted to the hospital. Pulmonary complications were frequent and developed quickly, but cleared up more rapidly than those in the ordinary type of bronchial pneumonia. Patients were not crowded; they were given free ventilation, and the results obtained from this treatment were most satisfactory.

From the Delaware River district, the epidemic next spread to the shipyards of the Pacific Coast, then to those located in the Southern-Atlantic Coast district, and, lastly, to those of the Great Lakes region. As all these yards had previously been warned, however, they were more or less prepared. Prophylactic sanitary conditions had been carried on most efficiently in the yards on the Pacific Coast, so that they were but slightly affected. In the district including the states of Washington and Oregon, a prophylactic serum of mixed pneumonia-influenza type had been employed previous to the appearance of the disease, and in those yards in which this had been used the epidemic made little impression. This was the only instance in which a prophylactic serum seemed to be of any value.

In the Great Lakes region, influenza had appeared in and about Chicago some time before, but it was not until some three weeks afterward that the epidemic seriously affected the shipyards outside the Chicago district. Here methods were adopted similar to those in other localities, hospitals being temporarily equipped, manned, and conducted at the expense of the shipyards management.

The physicians on the staff of the Department of Health and Sanitation went from district to district, giving the local medical talent the benefit of their experience in other localities in which the epidemic had already made its appearance.

In none of these yards were the employees charged for their care or treatment, although the expense of maintenance amounted to a considerable sum. The humane policy of the Shipping Board was manifestly a good one, for not one of the yards was compelled to close its gates at any time and the necessary shipyard worker was more speedily returned to his work after his illness with a greater spirit of loyalty and a keener desire to hasten the construction of ships.

THE EFFECT OF THE PAST YEAR'S EVENTS ON DIETETICS

Dietary Department of Hospital Assumes Increasing Importance—How Dietitians and Superintendents Have Solved the Food Problem Presented by the War—Work of the American Dietetic Association in Effecting Cooperation of Important Factors

By LULU GRAVES, Editor of Department of Dietetics, The Modern Hospital, President American Dietetic Association, Specialist in Nutrition, Cornell University, Ithaca, N. Y.

DURING the year just ended, the question of food and dietetics has been a vital one to everyone who has had any responsibility in the feeding of themselves or others. Since more attention has been given this subject by our hospital authorities, not a few have come to a better realization of the importance of their dietary departments, and some things of value have been "discovered." It has been somewhat of a revelation to find the number of very acceptable foods which may be produced from substitutes when combined with the proper amount of intelligence.

The situation which all hospitals have had to meet has been a very difficult one, but out of it have developed some practices which have proved of sufficient benefit to warrant their continuance. Many communications from hospital superintendents and dietitians have given such strong evidence of this fact that I take the liberty of quoting from a few of them.

"The one thing brought about by the war which we rather expected would come some day at the request of the nurses themselves is cafeteria service," says one hospital superintendent. "At the opening of the hospital nearly five years ago, we provided cafeteria service for the male and female help. This proved so satisfactory that the nurses themselves asked for the cafeteria service for their dining room; consequently, we are putting it in, and we expect it to be as good a saving there as it has been in the serving of the help.

"We have always maintained a restaurant for the visitors or friends of patients, as well as for any of the doctors or traveling men, who might happen to be in the building at the meal hours (meals are served here only at the regular meal time, and not continuously). It is a paying proposition and a source of great comfort, as we do not have to serve any trays in the private rooms and we have a place where we can take outsiders."

"For over two months," says a hospital dietitian, "not one grain of sugar has been used in cooking for either patients or nurses. The latter have been accustomed to having a dessert for dinner four times a week and the patients, twice a day. We still have the same schedule, using all the sugar substitutes on the market.

"Condensed milk is splendid for all kinds of custards and ice creams, while corn syrup makes any apple dessert most delicious. The latest experiment in our diet kitchen was a cranberry jelly made with Karo syrup, and a nice, stiff, acceptable-tasting jelly was the result.

"The cooperation of our nurses on the conservation of food has been most gratifying. They have eaten 'wheatless,' 'sugarless' 'experiments' without a grouch. Anyone who feeds nurses knows that this is the highest praise that can be given."

"Our milk allowance now," says the dietitian of a large municipal hospital, "is one-half pint for light diets, and one to one and one-half quarts for liquids, milk, and special diets. I believe this is a big saving. When the milk standard was set, our daily order dropped from as high as 118 gallons to as low as 70 gallons. This means a great deal, with milk costing forty to forty-two cents a gallon."

The dietitian of a large private hospital reports:

"The amount of bread used has been reduced by serving but one slice originally and additional slices only when requested by the patient. As all food is requisitioned from the kitchen each meal and a chart showing the number of patients is kept in the kitchen, there is little chance for wasting or misusing supplies."

The superintendent of a state school for the feebleminded says:

"We have found no objection to the serving of quick breads twice a day. In our regular baker's ovens we can bake corn-breads for 1,300 at one time. Each oven holds 190 loaves, making 380 loaves each baking in the two ovens. It depends upon the richness of the other items in the dietary whether we have one or two bakings for one meal. The corn-bread and muffins for the employees are baked in the regular kitchen ovens."

These few specific instances by no means tell the whole story. Dozens of institutions are doing things along similar lines.

The way in which difficulties due to the labor situation have been met in many cities is also significant. At the time when the influenza epidemic was causing havoc in every quarter, the schools were closed and the teachers of home economics offered their assistance to dietitians. Expressions such as the following leave no doubt as to the character of service rendered:

"Since the labor problem became so very critical, these volunteers have been of great assistance, and often we

have felt that they saved us from being completely overwhelmed."

"We have had three or four teachers helping in both the main and diet kitchens for several weeks. They are willing workers and have helped us out of a hole many times when we were swamped with work."

Valuable as this service was to the institution at the time it was given, there will be added to its worth the value of a better understanding between the hospitals and other civic interests. The teachers in the public schools will have a better knowledge and appreciation of the methods of managing dietary departments, which cannot fail to react favorably to the interests of both parties, bringing about a greater consideration of each for the other, and there is no reason why this cooperation should cease to exist.

In a few instances, patients from the county infirmary or other available institutions, or people from the dispensaries, were drafted into service for the less difficult pieces of work.

Within the past year the number of calls coming to me as editor of the Department of Dietetics of THE MODERN HOSPITAL, as president of the American Dietetic Association, or otherwise, for dietitians to develop or take charge of dietary departments has multiplied many times. I regret very much not to have been able to meet nearly all of these requests but hope, in the course of another year, to be better equipped to do so. I have a complete list of all schools in the United States offering home economics training, with some information regarding the size of the department, number of teachers, etc., and am now making a list of all the hospitals offering training to student dietitians, together with the length of course, the prerequisites for training, the kind of training given, and any other data of importance. With these data as accurate as we can keep them, I hope to be of assistance to both superintendent and dietitian. I have, also, the names of several hundred dietitians who are in active service, either in civil or base hospitals.

The American Dietetic Association was organized a little more than a year ago. The first annual meeting was held in Atlantic City in September, at the same time and place as the meeting of the American Hospital Association. This organization has a paid-up membership of one hundred fifty, with approximately an equal number of applications for membership. Included among its numbers are some of our leading nutrition experts, such as Dr. Mendel, John Phillips Street, Dr. Langworthy and Caroline Hunt, as well as members of the faculty of Teachers College, Cornell University, Pratt Institute, and many state universities where the home economics department is strongly developed.

This bringing together of the schools, giving foundational training for dietetics, the dietitians making the practical application of this knowledge, and the experts in nutrition, upon whom both groups rely to such an extent, will do much to improve the quality of the work done in our dietary departments. The association hopes to be of help to dietitians in any or all of the fields where the woman with training in food and nutrition is now in demand, i. e., the hospital dietitian, the executive dietitian, the social welfare dietitian, the teaching dietitian, and the specialist in dietotherapy.

A number of state and city associations have also become recognized factors working for the good of their immediate vicinities. The training offered to student dietitians by many hospitals is an advantage both to the student and to the hospital. Since this is so generally recognized, the courses offered have improved greatly, in regard to the character of the training as well as the length of the term.

In voicing her opinion on this subject, a certain dietitian expressed the thought of a great many when she spoke as follows:

"The training of pupil dietitians is a subject of the keenest interest to me. I wish that every school of home economics would make the hospital course obligatory before issuing a diploma and that every hospital superintendent would require such a course from her prospective dietitian.

"If a personal experience is permitted, I wish to say that I entered on my hospital career without ever having seen the inside of a hospital. I had never even met a trained nurse. Why I liked hospital work I'm sure I don't know, because the knocks I received were many and hard."

Conditions have not been favorable to the forming of metabolism wards the past two years, but those already established are doing a splendid work. At Hahnemann Hospital, Rochester, N. Y., 65 cases of diabetes, 49 cases of nephritis, and 21 cases of miscellaneous disease were treated during the past year. The report of this department of metabolism is most interesting reading. A few other departments are doing equally commendable things.

The dietary departments of all institutions have faced difficulties never before thought of—yet have faced them bravely and determinedly. In the year just ended, there has been laid the foundation for a strong and stable structure which bids fair to develop into a well-built and useful department—one that will take its proper place in the future plans of all hospitals and other institutions.

To know what you prefer, instead of humbly saying Amen to what the world tells you you ought to prefer, is to have kept your soul alive.—Robert Louis Stevenson.

TIME-SAVERS FOR THE ACCOUNTING AND THE LAUNDRY DEPARTMENTS*

Advantages of Using an Individual Pay-Roll Card—Time Saved and Friction and Jealousies Obviated—Simple Method of Caring for Linen

By L. H. BURLINGHAM, M. D., Superintendent Barnes Hospital, Administrator St. Louis Children's Hospital, St. Louis

WE have heard much of conservation of food, conservation of materials, and conservation of fuel. I want to bring to your attention two matters that have to do with conservation of time.

The first will conserve the time of your bookkeeper. You will all acknowledge that the time of the bookkeeper is most important because he, more than anyone else, can tell us where we are, so far as our consumption of food, materials, and fuel is concerned, and can let us know whether or not we are being as economical as is possible.

I suppose that in many hospitals the pay roll, including names of employees, wages paid, days of work actually performed, and amounts due, is written out in full every month; in some it is written out every two weeks, and in a smaller number, every week. Now that employees are favoring laws, which have already been enacted in some states, requiring a weekly pay roll, the number of those who will have to write the pay roll weekly will increase. At the Peter Bent Brigham Hospital we had a weekly pay roll. At the Barnes Hospital we pay every two weeks. My bookkeeper saves three to four hours each time he makes out the pay roll for about 150 employees, so that in the month he saves nearly a whole day, which is certainly well worth while.

Doubtless many of you have been bothered by the jealousies of employees who were receiving quite all they were worth to you, but not quite so much as someone else in the same line of work, who had been longer employed or who was more efficient. Again, the feelings of some employees are hurt because they have not received the same increase in pay as a coworker has, who has rightfully earned it, while they have not. It is often a matter of difficulty and much time to straighten out these petty troubles. How do they find out what the others are receiving? In two ways: one is by the bragging boast to which some are so prone, and the other, more sure and most authoritative, by reading on the pay roll what the others receive while signing their own names.

It was to obviate this second condition that the method I shall describe was worked out. The gain in time is the by-product, but, as is often the case, the more valuable of the two.

All our employees fill out a contract, which is essentially the same as that used at the Massachusetts General Hospital and Peter Bent Brigham Hospital, and which gives, in addition, the more important data in regard to themselves, such as name, residence, age, social condition, previous employers, etc. They are then given a number for the card rack of the time clock and a card with a corresponding number.

From the contract form, regularly called application blank, the necessary data are transferred to the pay roll card, which is really the backbone of the whole system. This card has a space for name, address, age, position, wages, hours, date when work was begun, and date when finished. Under "wages" enough space is left so that, as each increase in pay occurs, it may be set down, with the date, and initialed by the executive. The card is ruled off into weeks, and one card has spaces for fifty weeks; consequently each employee's name has to be written only once in that period of time. From the time clock card, the pay roll card is made up each week, with a single line in each day, if the employee worked all day. If he was late or if he left before the time was up, the number of minutes is indicated in the upper or lower part of the space for the day. If he worked only one-half day, that is put down as a fraction in the proper space. If on vacation a "V" is used, if sick, an "S," and if absent, an "A."

At the top of the card, just above the ruling for the weeks, is the statement, "Received from the Barnes Hospital wages in full to date," so that, when the employee signs his name on his card in the space following the proper week of work, we have an actual receipt for the money. This method makes the auditor's work easy, and the method has been approved by the auditors of both the Brigham and Barnes Hospitals. When an employee leaves the service of the hospital, a note is made by the head of the department on the card, giving the reasons for leaving, the character of the work done, and whether or not he should be reemployed. These are filed away alphabetically, and we are never at a loss to reply to a request for a reference from a prospective employer.

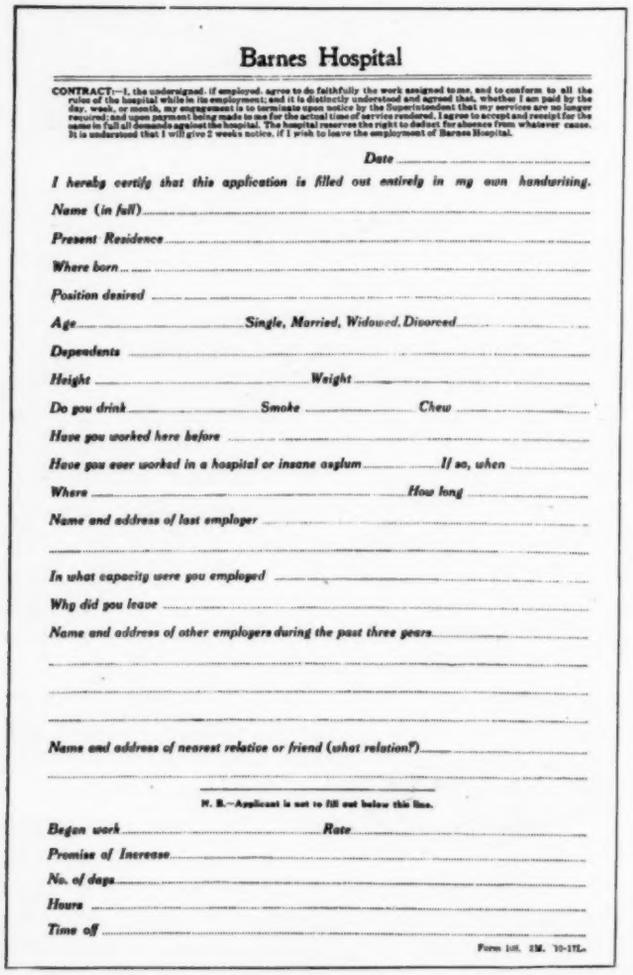
I may add that none of the hospitals with which I have been connected gives an employee a reference on leaving, feeling that such a reference is of no value either to the employee or to his prospective employer, but instead, they tell the em-

*Read at the Twentieth Annual Convention of the American Hospital Association, Atlantic City, Sept. 24-28, 1918.

ployee, if his work has been good, he may refer to the hospital.

Furthermore, if an employee wishes to return to work for the hospital even after many years have elapsed, we shall not have to rely on the hazy impressions of some department head who may have John Jones entirely mixed up with James Jones, a state of affairs not to be wondered at.

So much for the value of the system so far as the bookkeeper and the employees are concerned.



Barnes Hospital

CONTRACT:—I, the undersigned, if employed, agree to do faithfully the work assigned to me, and to conform to all the rules of the hospital while in its employment; and it is distinctly understood and agreed that, whether I am paid by the day, week, or month, my employment is to terminate upon notice by the Superintendent that my services are no longer required, and upon payment being made to me for the actual time of service rendered. I agree to accept and receipt for the same in full all demands against the hospital. The hospital reserves the right to deduct for absence from whatever cause. It is understood that I will give 2 weeks notice, if I wish to leave the employment of Barnes Hospital.

Date .....

I hereby certify that this application is filled out entirely in my own handwriting.

Name (in full) .....

Present Residence .....

Where born .....

Position desired .....

Age ..... *Single, Married, Widowed, Divorced* .....

Dependents .....

Height ..... *Weight* .....

Do you drink ..... *Smoke* ..... *Chew* .....

Have you worked here before .....

Have you ever worked in a hospital or insane asylum ..... *If so, when* .....

Where ..... *How long* .....

Name and address of last employer .....

.....

In what capacity were you employed .....

Why did you leave .....

Name and address of other employers during the past three years .....

.....

.....

.....

Name and address of nearest relative or friend (what relation?) .....

.....

N. B.—Applicant is not to fill out below this line.

Began work ..... *Rate* .....

Promise of Increase .....

No. of days .....

Hours .....

Time off .....

Form 1st. 2M. 10-17L.

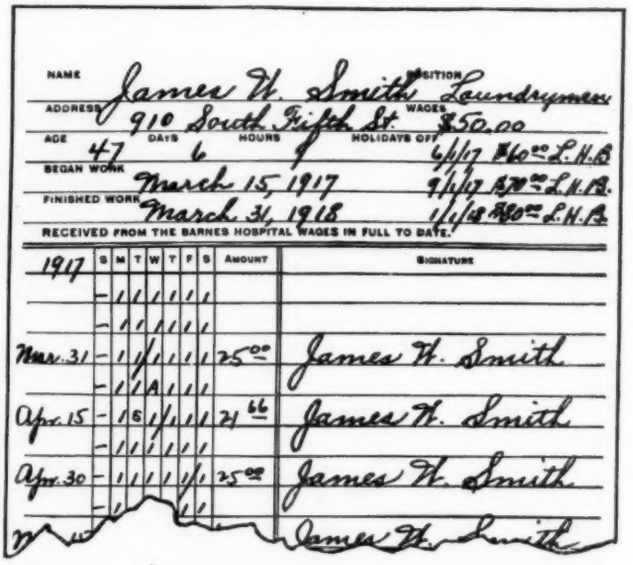
Fig. 1. Form of contract and application blank signed by candidate for employment at Barnes Hospital. Actual size of original, 9½ by 6 inches.

Now let us consider its value to the hospital executive.

We have a department recapitulation card for each department, on which the sums paid out to each employee on each pay day are entered, as well as the amounts to those leaving between pay days, and these sums are totalled. This enables the executive to know what individual increases and decreases have been made in the pay roll of each department.

There is a third card, the master card or general recapitulation card, on which are entered the totals from each department, thus enabling the superintendent to know just what departments show increases or decreases, and to learn just what the changes are in his pay roll as a whole. If payments are made by cash, this is all that is required. If they are made by checks, as at the Barnes Hospital, we keep a voucher register, with the employees entered by departments, which shows the numbers of the checks of each employee and the amounts. It is not necessary to have a special book ruled for this purpose. We purchased a trial balance book with spaces, so that, paying as we do, bi-weekly, we have to write the names of our steady employees but once in six months.

This method has been used at the Peter Bent Brigham Hospital, where the payments are made



NAME James H. Smith POSITION Laundryman
ADDRESS 910 South Fifth St. WAGES $50.00
AGE 47 DAYS 6 HOURS 9 HOLIDAYS OFF
BEGAN WORK March 15, 1917 6/1/17 $60 — L.H.B.
FINISHED WORK March 31, 1918 9/1/17 $70 — L.H.B. 1/1/18 $80 — L.H.B.

RECEIVED FROM THE BARNES HOSPITAL WAGES IN FULL TO DATE.

1917	S	M	T	W	T	F	S	AMOUNT	SIGNATURE
	–	1	1	1	1	1	1		
	–	1	1	1	1	1	1		
Mar. 31	–	1	1	1	1	1	1	25 00	James H. Smith
	–	1	1	A	1	1	1		
Apr. 15	–	1	1	1	1	1	1	24 00	James H. Smith
	–	1	1	1	1	1	1		
Apr. 30	–	1	1	1	1	1	1	25 00	James H. Smith
	–	1					1		

James H. Smith

Fig. 2. Pay-roll card in use at Barnes Hospital. Ruled on back, but heading omitted. Actual size of original, 5 by 8 inches.

in cash each week, at the Barnes Hospital, where the payments are made by check each two weeks, and at the St. Louis Children's Hospital, a hospital smaller than either of the above, where the payments are made each two weeks in cash. This shows the adaptability of the method.

My second time-saver has to do with the laundry. In former times all ward laundry was counted, listed, and sent to the laundry, where it was counted again and compared with the list. After being laundered, it was sorted into pigeonholes, counted, and sent back to the ward or place from which it came, and again counted. Some of the disadvantages of this system were due to the difficulty and tiresomeness of making the routine counts. Counting is never a thrilling experience, and a well-known administrator once said, "Why is that I find so great a difficulty in getting a correct census of my institution of a thousand beds?

Why can't the nurses actually count the patients instead of taking the number of beds, subtracting so many sheets, and turning in the result as the correct number?" There is no answer to this except that people do get tired of routine counting and try to short-cut it whenever possible.

Another disadvantage was that each ward had to have its laundry individually marked, so that each sheet had to be examined carefully for its mark instead of being simply sorted out quickly into a pile of sheets, as is done in the central linen room and also in our method, which I have called the "direct method." Again, laundry marks often came out in the wash, thus creating confusion. Furthermore, each ward had to have a surplus of each article to avoid running short if the laundry did not come back on time. Then, too, it was not always convenient to get out all the laundry received on one day, and this, of course, would muddle the ward, as the articles returned would not correspond with the list sent, the number received one day being less than those sent, the next day

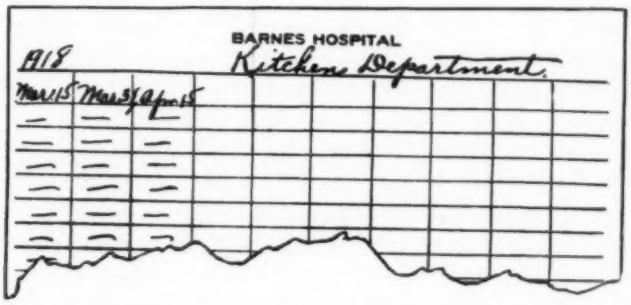


Fig. 3. Department recapitulation card. Ruled on both sides. Actual size of original, 5 by 8 inches.

more than those sent. In a word, a lot of bookkeeping had to be done by people with no special aptitude for it or interest in it.

The next method, and a step forward, was the establishment of the central linen room. The laundry was marked usually only with the hospital name. It was sent to the laundry without being counted, was washed and sent directly to the central linen room. Here it was sorted only into classes as sheets, pillow cases, spreads, etc. Any article requiring mending was sent to the sewing room. The various wards sent down a requisition only for the amount needed for the day. This method saved a great deal of time in counting and sorting, and reduced the stock of linen necessary to keep on hand by as much as a third or half.

At the Barnes Hospital we think we have taken another step in advance. We have abolished the central linen room, and have established a method of elemental simplicity. Now the linen is sent to the laundry, as previously, and laundered. But, instead of being piled into baskets and taken to the linen room, sorted and placed on shelves, and then transferred from the shelves to the carriers and thence to the wards, it is taken directly from the laundry machines to sorting shelves in the laundry and from these shelves it is placed in baskets for the various wards and delivered to them directly from the laundry. The laundry is just as easily sorted, and no larger supply of linen is required than under the central linen room system. Our savings are the following: We save time in transportation. We no longer require practically the whole time of one woman and part of that of another in the linen room, as the sorting and filling of orders is done by the

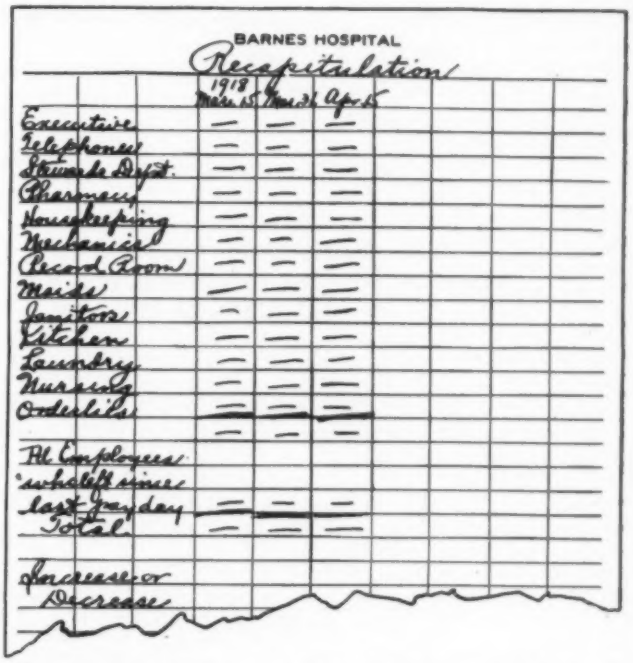


Fig. 4. Master card or general recapitulation card. Ruled on both sides. Actual size of original, 5 by 8 inches.

head laundress and a checker. We save the time of orderlies or porters, both exceedingly rare individuals in these days, in having the laundry delivered by the same boy who collects it.

We have had this method in use nearly four months, to the complete satisfaction of all concerned, and the saving has been well worth while. Since we worked out this method at the Barnes Hospital independently, we have discovered that the Massachusetts General Hospital is successfully using practically the same method.

Abstract of Discussion

MR. F. E. CHAPMAN, Cleveland: I would like to suggest a further time-saving step in paying help. Dr. Burlingham makes a check, then he enters it on a card, and then he handles that card again to have the employee sign it. He has that employee endorse the check, which is a receipt, if the reverse side of his check is so worded, elimi-

nating the necessity for handling the card. Now, as a matter of distribution of expense, if he will pool that card with an adding machine, there will be one handling of the card necessary, and if he will put the check number opposite the amount paid he will have a ready reference, so that he will eliminate another handling.

MR. C. B. HILDRETH, Cleveland: In doing away with the linen room, do you not find that after the laundry is closed often the department wishes linen supplies?

MR. J. R. HOWARD, New York: It wasn't clear to me whether the pieces were counted. It looked to me like saving the time of a bookkeeper by doing away with the trial balance.

DR. BURLINGHAM: As to the losses of laundry, we try to get a correct inventory every six months of all the laundry in the hospital; that is, we take the account of the previous inventory, add to it the amount we have put in service, and, of course, that is just the same as the amount we have taken away, because we replace only worn-out articles, unless there is some definite reason for increasing our standard. We find that under the present system we do not lose as much laundry; that is, during the last four months we have lost less laundry than we did under the old system. Now, I can't say that's entirely due to this system. I don't believe it is. I believe it is partly due to the fact that we are marking all our linen much more carefully and keeping the marks on them better. We have had numerous conferences with our employees through our heads of departments, and we have explained to them that taking a hospital article isn't "swiping" it—it is plain stealing—and it seems to have appealed to them.

As to not counting being comparable to not taking a trial balance, I would say that a trial balance that is not correct has never done anybody any good.

As to the way the wards get their supply, the requisition is sent down to the laundry by a messenger.

Our surplus linen is kept on the shelves in the laundry, and, if more laundry is needed on a Sunday or holiday or after hours, the key to the laundry is available.

The laundry is marked only by the hospital name and for a certain few articles that go to special places, but generally the name is put on. In some cases we separate wards from the private pavilion but we don't separate the various wards by marking.

THE EMERGENCY INFLUENZA HOSPITAL AT WAYNE, PA.

Splendid Community Team-Work of Red Cross, Local Physicians and Organizations, Catholic Sisters, Deaconesses, Lay Volunteers, and Police Department—Gratitude of Those Who Received the Benefits of the Hospital

BY OUR LOCAL CORRESPONDENT

WHEN the influenza epidemic developed serious proportions in Wayne, Pa., it was at once realized that prompt action was necessary to alleviate the distress in which many families, particularly among the poorer classes, found themselves. Mrs. William Henry Brooks, chairman of the Wayne Branch of the American Red Cross, called a special meeting for ten o'clock on the morning of October 10. The social worker and the visiting nurse of the Neighborhood League, a local philanthropic organization, were invited to attend this meeting and to report on conditions.

As a result of the conference, it was decided that an emergency hospital and diet kitchen should be opened immediately. The ladies of the Saturday Club offered their building for the purpose. By noon a full equipment for a fifty-bed hospital was requisitioned from the Southeastern Pennsylvania Chapter of the American Red Cross. A local factory offered its trucks and by eleven o'clock that evening twenty-four beds and all necessary equipment—screens, tables, etc.—were installed in the club house.

Fig. 1. The emergency influenza hospital at Wayne, Pa., organized by local initiative and installed in the building of the Saturday Club.

At eight o'clock the following morning Mrs. Robert G. Wilson, a resident of the community and a graduate of the London Hospital, who had been placed in charge of the work, opened the hospital and with her staff began receiving patients. The staff consisted of two trained nurses, four Presbyterian deaconesses, two Catholic sisters and fifteen lay volunteer nurses, the latter working in shifts of five. One trained nurse, two of the deaconesses, the two Catholic sisters, and one volunteer orderly comprised the night shift.

At nine o'clock the first patients were received, a man, his wife, sister-in-law and three children, all desperately ill. By noon fifteen cases had been admitted and the second day brought the total up to twenty-four. With the growing demand upon the hospital, it was realized that provision must be made for children. Plans were hastily drawn for a building measuring 18 by 40

feet, of frame construction, and in three days this building was erected, equipped with steam heat, electric light, intercommunicating telephone, and running water. Four patients were admitted on the third day. The addition of this ward raised the total capacity of the hospital to thirty-six beds, which were rapidly utilized.

The local physicians, seven in number, visited the hospital daily, and each case was given medical attention by its own special physician.

To care for the expectoration, paper handkerchiefs were used, which were issued frequently to patients. The paper handkerchiefs were placed in ordinary paper bags, the bags being removed as frequently as necessary and destroyed by burning. This work was the special duty of one nursing aid, who kept the supply plentiful and made the removal of soiled handkerchiefs in the bags her duty. All clothing, blankets, etc., were disinfected with coal tar disinfectant. Compound solution of cresol (lysol) and formaldehyd were used for the bed-pans, toilets, etc.

The patients were nursed on army cots requisitioned from the Red Cross. The most seriously affected patients were nursed in beds collected in the neighborhood; five beds and five cribs were lent. Men and women were, by reason of space limitations, nursed in the same ward. The ward was divided full length by four-fold hospital screens, five of which were donated. The patients were placed head to foot alternately instead of using divided sheets. This was necessary on account of the limited capacity of the ward.

The laundry work was handled by a special committee, which employed paid help, and was done in a separate building and away from the hospital.

The police patrol, which is well equipped for ambulance work, was used in transporting patients to and from their own homes. The local police heartily cooperated in this work.

Owing to the problems which frequently come from the handling of patients' own clothing and the impossibility of disinfecting it, all patients were put into hospital clothing in their own homes and brought to the hospital wrapped in blankets and were sent home in like manner. This solved the problem of "how to handle patients' personal belongings."

The ambulance was run by volunteer nursing aids, with the assistance of the police, who were frequently pressed into service for stretcher work. The cases were always accompanied from and to their homes by the social worker or the visiting nurse of the Neighborhood League, who saw the patient returned and made it her duty to see that everything was in good condition in the patient's home. This was important, inasmuch as many patients were poor and ignorant Italians, upon whom it was difficult to impress the importance of the need of "after-care."

Fig. 2. The emergency children's ward, erected and equipped with steam heat, electric light, intercommunicating telephone and running water, all in three days.

The telephone service at the hospital was conducted in a small room off the main ward and was cared for by a committee of ladies who took orders for the diet kitchen (attached to the hospital) and answered all hospital calls.

The motor messengers of the Wayne Branch were on duty all day, ready for orders, and attended to the delivery of all baskets sent out from the diet kitchen.

The diet kitchen, a very important part of the emergency hospital, was under the able management of Mrs. E. W. S. Tingle, who worked untiringly. In addition to the hospital diet, which was the very finest as to the quality, quantity, and service, and consisted of sixty-one meals daily in addition to soup for the night nourishment, 139 baskets were sent out daily. The total number of meals served by the diet kitchen in the nineteen days the hospital was open was in excess of fifteen hundred.

The hospital was liberally supported by volunteer contributions, which in cash amounted to $2,169.81. Unlimited quantities of soup, custards, jellies, oranges, clothing, beds, and bedding were most generously donated from all quarters.

Touching incidents showing that people realized what was being done for them occurred when an Italian man appeared at the hospital and turned in $27 in cash, together with a list of names of the Italians who had contributed the amount, and again when a working woman called at the hospital and gave a dollar in lieu of nursing service, which she felt she ought to render, but could not because she had "young uns" at home. The hospital was open twenty-one days, with the record of sixty-three cases. Of the patients, fifty-one returned home recovered and eight were transferred to other hospitals at the time of closing. There were four deaths.

THE SYMMES-ARLINGTON NURSES' HOME*

Community Hospital at Arlington, Mass., Enlarges Its Capacity in Order to be Ready to Render Patriotic Service—Sleeping Balconies an Original Feature of Plan

By WARREN C. HILL, of Kendall, Taylor & Co., Architects, Boston.

ON Patriots' Day, April 19, 1918, the Symmes-Arlington Hospital opened to the public and future usefulness its new nurses' home.

It was a pleasant coincidence that chose Patriots' Day for this celebration, linking as it does, the stages of growth in this hospital with events of national and patriotic association, for the hospital was first opened to the public on Washington's birthday, 1912. It is appropriate, too, that a building, one of the prime causes for whose erection is that the hospital may be ready to do its part in the care and recovery of our soldier boys, should be dedicated on a day consecrated to the memory of those who served their country in her day of need.

The development of this institution since its opening in 1912 has been remarkable, and the record of patients treated and the low per capita costs maintained have been the wonder and admiration of other hospitals of its size. During

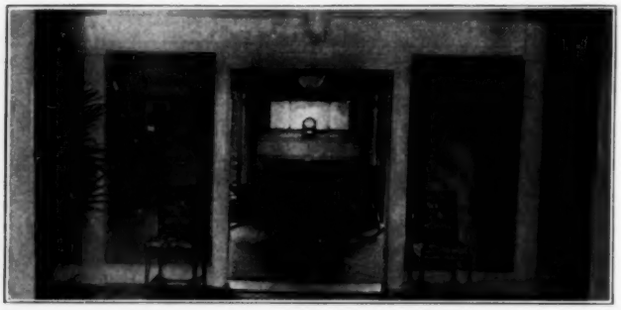


Fig. 1. Entrance hall and sitting room, Symmes-Arlington Hospital Nurses' Home, Arlington, Mass.

this period, including the year 1917, with 1,869 patients, including 285 maternity cases, cared for, the average per capita cost has been $3.50 per day, and the percentage of the treatment paid by the patients has been 82.5 per cent.

The capacity of the hospital for some time has been taxed to the utmost and, two years or more ago, the accommodation for nurses was found inadequate—in fact, so distressingly so that, in the fall of 1916, the trustees asked the architects, Kendall, Taylor & Co., to make plans of adequate provisions not only for the present great need, but for a reasonable growth in the immediate future. The foundations were put in during the fall and winter, but, at the outbreak of the war in the spring, it was a grave question whether it would be possible to carry on the superstructure.

A year after the first development, the trustees decided that this building was essential to the

Fig. 2. The sleeping porch, second floor.

present work, and also for patriotic service which the hospital might be called upon to render, and they felt they ought to complete the building at the earliest possible date. They reasoned that,

Fig. 3. A sleeping room in the Symmes-Arlington Nurses' Home.

even with the large provision made for the care of sick and wounded in France and by the national government, it was necessary, with the hundreds of thousands of men in the service, for every hospital in the country, more particularly those on the Atlantic seaboard, to be ready for any sort

*This is the eighth in a series of articles on nurses' homes. The first, "Nurses' Homes and Some of Their Requirements," by Olof Z. Cervin, appeared in January; the second, "Kistler Memorial Home for Nurses of Lock Haven Hospital," by V. Happersett and Louis H. Rush, in February; the third, "New Nurses' Home for Minnequa Hospital, Pueblo, Colo.," by R. W. Corwin, in March; the fourth, "The Helen Newberry Nurses' Home," by Harriet Leck, in April; the fifth, "The Nurses' Home of the Norton Memorial Infirmary," by Arthur Loomis and Julius Hartman, in May; the sixth, "Nurses' Homes—A Plea for Efficiency in Their Design," by Meyer J. Sturm, in June; and the seventh, "The Nurses' Home of the Hackensack Hospital," by Frederick P. Washburn, in August.

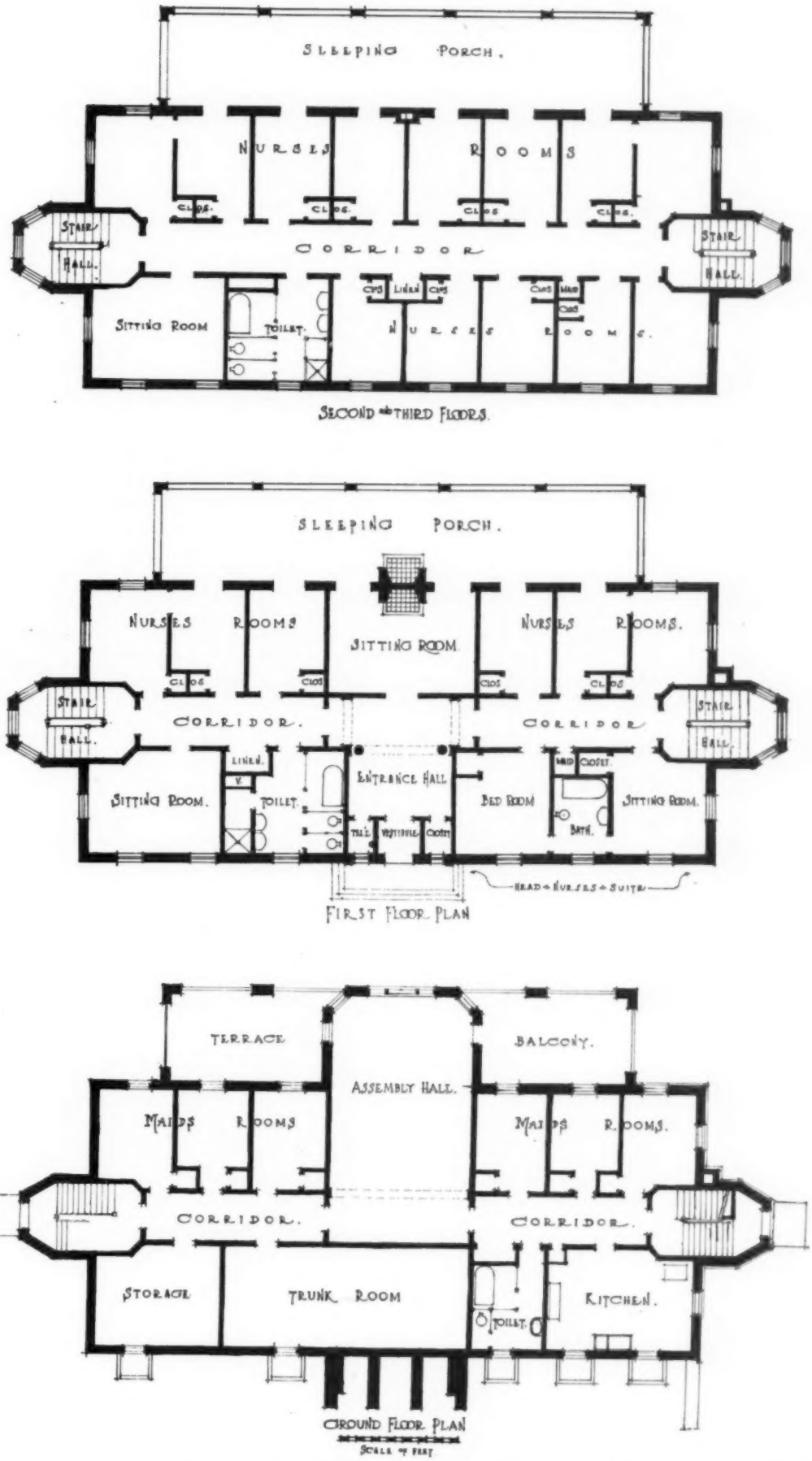


Fig. 4. Floor plans of the Symmes-Arlington Nurses' Home.

of an emergency with the maximum number of beds possible available.

The present capacity of the hospital is twenty-five beds, but with the opening of the nurses' home this will be increased to thirty-five under normal conditions and to sixty or seventy in an emergency. If every hospital could increase its emergency capacity to as great an extent, there would be no need of the cry "not sufficient facilities."

This building, which overlooks the route of Paul Revere's famous ride, is located south of and considerably below the hospital building, on the hill east of Massachusetts avenue, near Grove street, and the location is such that it does not interfere with the outlook from the hospital building or any future extension that may be added to it.

The building is a simple expression of American domestic Georgian architecture, built of red water-struck brick with stone trimmings. On the front which faces the approach to the hospital, it is but three stories high, but as seen from Massachusetts avenue it is two stories higher, as the natural slope of the side hill was utilized to obtain the use of every possible bit of space and daylight. This side presents a feature unusual in buildings of this class, for, along almost its entire length are wide sleeping balconies and from each room opening thereon are wide doors, so that beds may be rolled from the room on to the porch. This gives a large, airy sleeping dormitory at night and, during the day, when the beds can be put back into the rooms, a delightful porch, the view from which, over miles of space, is beautiful.

The building will accommodate in the upper stories, thirty-five pupil and graduate nurses, and in the lower story are rooms for six domestics. Toilet rooms with ample bath facilities, including showers, are provided on each floor, as are also linen, storage and maids' closets.

In the first floor at the front entrance is a large reception hall and opening from this a parlor, which in turn opens on to the balcony. The woodwork of these rooms is finished in cream white enamel and the walls are covered with Japanese grass cloth paper, which, with willow furniture, tastefully upholstered, creates an effect of privacy which makes one feel that he is in a private house instead of an institution. Sitting and sewing rooms are also provided in each story, and in these rooms, as well as in each nurse's room, the color effect on woodwork and walls, and the same feeling are maintained. This homelike atmosphere was desired at the outset by the trustees, and a personal visit will indicate how well it has been carried out.

On the ground floor, in addition to the domestics' rooms, is a large class or assembly room, equipped for lectures or for the relaxation of the nurses when off duty. A pleasing view is had from this room through a large plate glass "picture" window. Adjoining this room is a large kitchen for instruction or work of a light character, and adequate provisions have been made for small laundry work, storage of nurses' luggage, and many other details.

The novel arrangement of the stairs in fireproof staircases is another feature, and the fireproof boiler room in the sub-basement, with its separate entrance, is an interesting detail of the planning.

Nursing is a skilled profession, and the advanced methods of treating the ills of mankind have shown the trustees that, to maintain a successful hospital and training school, every possible facility for education, training, and adequate and comfortable living quarters during the training period must be provided.

The Symmes-Arlington Hospital has not only provided all this with the new building, but has laid a foundation, in so doing, for the future of the hospital itself and for the care of community sickness by skilled, sympathetic women.

The building with its equipment has cost $50,000, all of which has been raised by popular subscription.

In considering the expenditure for this building, it must be remembered that, while providing for the present needs of the hospital, the trustees have had in mind the natural and inevitable increase which must before long come to the hospital from the growth of the community, even if the demands of the war do not force an earlier expansion—and this building provides for the demands of such a growth.

The town is to be congratulated upon this addition to its public buildings and should be proud of the public spirit which has made it possible. The benefit will be shown and shared in the service of trained and capable nurses to the sick of Arlington.

The Royal Naval Hospital, Granton.

This hospital is situated on high ground to the north of the city of Edinburgh. The buildings were originally those of the Leith Public Health Hospital built in 1894. In the summer of 1916 the admiralty took the buildings over for use as a naval hospital. The hospital is built on the bungalow system and consists of four main pavilions, a small centre pavilion, which is now used as an operating theatre, a three-story administrative block, a laboratory, garage, mortuary, steam laundry, etc. A general description of this institution by H. M. Whelan appears in a recent number of the Jour. Roy. Nav. Med. Service, of London.

SUMMARY OF NURSING EVENTS IN 1918

War Demonstrates Need of Sound Training for Nurses—Work of Red Cross in Obtaining Enrollment to Meet Demand of Surgeon-General—Cooperation of Public Necessary to Secure Best Results for Future

By MARY C. WHEELER, R.N., Superintendent of Illinois Training School for Nurses, Chicago

As a background to the profession of nursing we have an innumerable number of hospitals that have started their independent schools of nursing with or without an educational basis and with a varied number of opportunities to be placed before their students. Also, in this background, we have the attempt of the various states to regulate conditions of schools of nursing through registration. In many instances this has led to inspection of schools, which has started a few standards in theory and practice. Out of this registration have also been accumulated some general data for our schools as a basis for comparison.

This background has had to be built, principally, by the nurses themselves and by many of those who have been doing this in conjunction with their intricate hospital positions. The boards of control have not been particularly interested in the schools of nursing beyond the actual needs of their individual hospital. Educational bodies have been slow to realize the educational value in a service which combines the class room with practice in the hospital laboratory, for it seemed so far away and so different from their own immediate problems. The public, as a whole, has been willing to accept the "nurse" for almost any position of trust without discriminating as to her qualifications.

Through our great adversities, however, interest has been aroused in the training of women. It has been demonstrated that actual training is necessary in order to get us to the point where we can control self and place this self in efficient service for others. With but a small amount of warning the nurse was asked to step into line for war service, and, though perhaps not fitted for this big piece of work during times of peace, she has, to the best of her ability, developed her resources and has brought to the front those qualifications which were needed.

The American Red Cross had previously been enrolling nurses, but, upon the demand for nurses by the Surgeon-General's office, the nursing department of the American Red Cross immediately became active in order to meet the tremendous need. The Surgeon-General asked for 25,000 graduate nurses by January 1, 1919, and a force of 50,000 by July 1, 1919. Since May 1, 1917, 13,000 nurses have been sent for overseas service, either in the base hospital units or in various commissions. At present there are 34 Red Cross hospitals (12,364 bed capacity), besides the large number in our cantonments and in the home defense group. Thirty-three thousand graduate nurses have said to the Red Cross, "We are ready; use us."

In order to facilitate the enrollment, the country has been divided into thirteen divisions with a director as the head of each division. The following list, made up September 1, 1918, shows the states which have given the quota of nurses to meet the war demands. Since the publication of this official list the numbers have grown.[1]

PERCENTAGES TOWARD SECURING QUOTA OF 27,000 NURSES

State—	Pct. of quota raised	State—	Pct. of quota raised
Colorado	100+	Ohio	48
Maryland	100+	District of Columbia	47
California	97	Nebraska	46
Illinois	97	Michigan	44
Missouri	95	Utah	43
Washington	94	Montana	42
North Dakota	91	Arkansas	41
Idaho	83	Connecticut	41
Virginia	80	New Jersey	41
Iowa	76	Texas	36
Wisconsin	74	Maine	35
Minnesota	73	Rhode Island	33
Pennsylvania	72	Kansas	33
Kentucky	63	Oklahoma	33
South Dakota	61	Florida	33
Louisiana	60	Alabama	29
Indiana	60	New Hampshire	27
Tennessee	57	Vermont	27
Massachusetts	56	Delaware	21
New York	55	West Virginia	19
Oregon	54	Mississippi	18
Wyoming	51	North Carolina	15
Georgia	51	South Carolina	15

Schools of nursing all over the country were asked by the Surgeon-General to increase their number, just as far as possible, in the schools, in order to be ready to meet the demands later on. It was also planned that, in case of great necessity, students in their senior year should be loaned to the government for service either overseas or at home. In order to help the situation, the women's committee of the Council of National Defense was asked to carry on a campaign for an increased number of students in the schools, known as the Student Nurse Reserve. Up to the middle of September there were over 8,000 applications for enrollment in this Student Nurse Reserve. Many of these applications were for the Army School of Nursing, recently established, and others who merely signified their desire to enter a school of nursing, were distributed by the special committee for that purpose to schools

[1] Am. Jour. Nursing, Nov., 1918, p. 87.

which were in need of applicants, where the applicant's qualifications would fit the requirements of the school. This move showed not only that it was necessary to know the needs of the schools throughout the country, but also that it was very essential for the women on the committees to realize the standards of the schools. It will also give these committees a great opportunity to know conditions in the schools to which they have sent students and will do much toward righting some of the present wrongs.

A deep interest has been taken in the Vassar Training Camp for Nurses which opened at Vassar College, Poughkeepsie, N. Y., on June 26, 1918, and closed September 13. This time was as a preliminary period before entrance into hospital service. The woman who entered this training camp met a definite qualification which was not ordinarily demanded in the schools of nursing by being on the average an older woman and having had a college education. One hundred and ten colleges were represented in this group of women, and whether or not the adjustment can be satisfactorily made between a preliminary training camp and regular training school duties is a matter to be worked out in the future. The permanent result will go back and rest entirely upon the personality of the woman.

The Army School of Nursing has also been established since last year, making the requirements for entrance into the school somewhat higher than that for the majority of schools of nursing.[2]

It is a well-known fact that there are many things which have come to the hands of nurses which any woman with common sense, a desire for making herself useful, and an appetite for work would be able to do without having definite training in various parts of the nursing service. To meet this need, the government has asked for women to receive some instruction and some practice in the various hospital wards, calling them nurses' aids. The women who have taken up this work with a good background of health, common sense, and a brain, have been of invaluable service in many ways and are to be depended upon greatly. The ones who have taken it up as a fad or as a stepping-stone to climb directly into France have been a great disappointment. An opportunity was given them to show what their training was worth during our recent epidemic of influenza. During this epidemic the hospitals which were willing to receive these patients were strained to the utmost in the care of the same. All women who had any time at all upon their hands were asked to cooperate in meeting this situation. Many mistakes occurred during this epidemic, and many nurses did not live up to their highest points of efficiency. Often, however, it was not because they were unwilling to do so, but rather because they had had no real training in the past. And this would bring us to the point that women, in general, should be not only good, but good for something worth while.

The future holds many questions both for the graduate nurse and for the woman now in training, and, if these questions become answered, the future education of the woman as a nurse must undoubtedly be changed. The matter of reconstruction for all of our institutions is of great importance.

To find out the nursing situation over the land, the Red Cross has been asked to make a nation-wide survey of nursing resources. This survey is of extreme value, and we hope that it may lead to better standardization. The question of training attendants to meet such needs as the care of the convalescent, the care of the chronic, the intelligent overseeing of well children, and many forms of individual reconstruction, outside of surgical and medical attention and some parts of the public health service, may safely be given to the women who met definite qualifications and are willing to be trained for this special kind of work. This must be undertaken within a short time, and plans are already on the way for developing a course for attendants.

The public health demands from all parts of the country are very pressing. Schools are urged to incorporate special public health courses in their curricula in order to have their women meet this particular need.

The question of rank for nurses has been placed in the Lewis-Raker bill, which is now in the hands of the senate military affairs committee. Plans are on foot to care for the sick nurses who are returning to us from overseas and also to place in various positions nurses who will be in need of employment when they are discharged from the ranks of the army.

In many instances the public has learned to be less selfish in the care of their sick by allowing one nurse to care for several patients in addition to their own. People have discovered that it is inconsiderate to have two nurses on a case where, with a little forbearance on the part of the patient and a little care extended by the family itself, they can very nicely get along with one, thus reducing the number of nurses on private duty and increasing the number in the various institutions where they are badly needed and in public health work. Doubtless not all of our

[2] For a detailed account of this piece of work please see THE MODERN HOSPITAL, November, 1918, pp. 410-413.

nurses will return from overseas, as many will be kept for an indefinite period, either to meet the need of the retained army or to help in the reconstruction of public health work there.

The public must also realize the great need of financial aid. Money is needed to put through our bill giving rank to the army nurses; to endow schools of nursing which will be known and recognized as legitimate schools with proper educational advantages; to assist in training attendants for peace, war, or reconstruction work; and to help with the public health courses in order to get women ready to take up this important branch of the work. In all of these the interest and the brains of the public are essential, in knowing what schools of nursing need, in knowing that the right type of women are being selected and the right kind of education extended, and in seeing that the nurse is, finally, properly fitted into places where her qualifications will be most useful.

PROGRESS IN INDUSTRIAL HYGIENE AND MEDICINE DURING THE YEAR 1918

Health Protection for Worker Shows Progress in Seven Distinct Fields—Exact Relationship Between Industrial Occupations and Health of Employee Becomes More Clearly Defined—Rehabilitation of Soldier Opens Way for Reconstruction of Industrial Cripple

By FRANCIS D. PATTERSON, M.D., Chief of Division of Industrial Hygiene and Engineering of the Bureau of Inspection, Pennsylvania Department of Labor and Industry

THE year 1918 has seen material progress in the protection of the health of the worker which may be briefly summarized as follows:

INCREASED INTEREST IN THE TEACHING OF INDUSTRIAL HYGIENE IN MEDICAL SCHOOLS

Until this year courses in industrial hygiene have been conspicuous by their absence as a portion of the curriculum of most of the medical colleges. In the judgment of some, entirely too much stress has been laid in the ordinary curriculum upon many diseases, while too little attention has been paid to the more common industrial diseases which are often a material factor in sapping the strength of the worker.

Two of our Class A medical colleges are now giving a splendid course of instruction in industrial hygiene. These are the University of Pennsylvania in Philadelphia and the Harvard Medical School in Boston. The work at the University of Pennsylvania is performed in complete cooperation with the Department of Labor and Industry of that state, so that the students have full opportunity to study carefully the hygiene and sanitation of the factories.

Another important factor in attracting the interest of the students of the medical schools to questions of occupational hygiene is the prize which is offered by the American Association of Industrial Physicians and Surgeons to any medical student in a Class A college for the best thesis upon any subject in industrial medicine.

THE ADEQUATE MEDICAL SUPERVISION OF WORKERS AND THE MAINTENANCE OF PROPER RECORDS

This has been a portion of the war program of the United States Public Health Service, which has cooperated with the industries and with the various state labor departments in the effort to secure adequate medical and surgical supervision of employees. The various works surgeons have been appointed officers in the United States Public Health Service at a nominal salary, and an effort has been made to collect reports of the prevalence of disease among employees and the sanitary conditions of industrial communities.

The United States Public Health Service has taken such measures as are necessary to provide adequate medical and sanitary supervision of all establishments which are operated by the Federal government and has, wherever practicable, established the necessary dispensary and hospital facilities, so that employees of the Federal government might receive the best medical and surgical attention.

PHYSICAL EXAMINATION OF WORKERS

The physical examination of workers has received the unqualified endorsement of Mr. Samuel Gompers, president of the American Federation of Labor, and it needs no words of mine to emphasize that this is a wonderful step forward, as it will eventually result in insuring both the physical examination of all applicants for employment and their reexamination at a stated interval, so that defects may be properly and promptly corrected and eventually we may have knowledge of the exact relationship between industrial occupations and the health of the worker.

SCIENTIFIC STUDY OF FATIGUE

The importance of industrial fatigue as a factor in decreased efficiency of the worker needs no comment. A very remarkable study of the means

to be employed to reduce industrial fatigue has been made by the divisional committee on industrial fatigue of the section on sanitation of the welfare committee of the committee on labor, of the advisory commission Council of National Defense, which has been reprinted as Reprint No. 482 of the United States Public Health Reports. No one can fail to gather knowledge from this most excellent report.

SANITATION IN SHIPYARDS

The demands of the war emergency created hundreds of shipyards along our eastern and western seaboard and upon the Great Lakes. The gathering together of these thousands of workers brought problems of sanitation that had to be solved if industrial efficiency was to be maintained.

Col. Philip S. Doane of the United States Army was assigned by the Surgeon-General's Office to the United States Shipping Board and placed in charge of all matters of sanitation, and the extremely competent manner in which he performed his work was a material factor in the building of the bridge of ships.

NEW METHOD OF TREATMENT OF WOUNDS

A group of surgeons working under the direction of Col. Edward Martin of the United States Army devised and developed a very remarkable advance which has been applied to industrial surgery. This is the treatment of wounds by dichloramine-T-chlorcosane, which has been a material factor in reducing the time lost as the result of industrial injuries.

THE REHABILITATION OF THE INDUSTRIAL CRIPPLE

The magnificent results which have been obtained in the physical reconstruction and industrial rehabilitation of the war cripple have emphasized to the industrial surgeons the extreme importance of securing the physical reconstruction and industrial rehabilitation of the industrial cripple.

It has been estimated that there are in this country 300,000 serious industrial accidents a year, of which number a large percentage result in the production of what might be termed "industrial handicaps." In the past, adequate measures for restoring these men to their rightful place in industry have been conspicuous by their absence, and it is our hope that in the future hospitals will be established which will have every known appliance to insure the best possible physical reconstruction, intensive vocational training, and finally, the reemployment of the injured worker, not in his old place, but in a better position. No state can dodge its responsibility in this matter, and a part of the compensation payment for industrial injuries should be, in addition to the monetary portion, this restoration and training.

A YEAR'S REVIEW OF HOSPITAL DRUGS AND CHEMICALS

General Improvement and Gratifying Progress Shown—High Prices Resulting from Chaotic Market Conditions at Beginning of War Experience Considerable Drop—Scarcity of Supply Overcome by Government Activity in Medicinal Plant Cultivation

By JOHN K. THUM, Ph.M., Pharmacist at the Lankenau Hospital, Philadelphia, Pa.

FROM the hospital-pharmacy point of view—and particularly from the point of view of the hospital that manufactures its own pharmaceutical preparations—the matter of drug and chemical supplies for the past year shows a marked change for the better. The chaotic condition engendered at the beginning of the war in 1914, which for a time upset all business, and particularly the drug and chemical markets, was not repeated by our country's entrance into the great war. This was undoubtedly due to the fact that the American business man and manufacturer had adjusted himself to the new conditions and had more or less mastered the situation.

Shortly after the beginning of the war, carbolic acid, which had been selling prior to that time at 14 cents per pound, advanced in leaps and bounds to the remarkable price of $1.50 and $1.75 per pound. The development and progress of the manufacture of this coal-tar derivative in this country has been such, however, that this hospital necessity can now be bought for 45 to 55 cents per pound, with fair prospects of a lower price when the industry is more firmly established. This is only one of many instances in which progress has been made in meeting the needs of the sick.

Up to the present time we have experienced no really serious lack of medicinal supplies. It is true that many things are scarce and, as a consequence, prices are high; yet one is struck by the fact that the prices which prevailed two and three

years ago have decreased nearly 40 percent. When it is considered that this country has always depended to a large extent on Europe for many of the drugs from medicinal plants, it is worthy of notice that the prices of such drugs made practically no advance at the beginning of the war. As the stock in the country began to be used up, however, and shipping transportation was diverted to other and supposedly more important channels, these drugs began to soar in price.

Such important drugs as digitalis, hyoscyamus, belladonna, stramonium, and licorice have by this time become rather scarce, and, were it not for the fact that the government, through the activity of the Department of Agriculture, has interested itself for the last several years in the necessity of medicinal plant cultivation in this country, we would indeed be in a bad way. A special division has been organized by this department for the study of this subject, and valuable information is now available to those who are interested. It is also worthy of notice that in some instances private capital has taken up the matter of medicinal plant cultivation and several of the large manufacturing pharmaceutical houses have started farms for their source of supply for these drugs. Altogether, the past year has shown much progress and promise in developing this important industry.

A great many drugs are obtained from the far East and for obvious reasons are at the present time unobtainable. Among these may be mentioned styrax, which comes from the Levant and is not to be had. A few months after the war commenced, the price of this drug had advanced to $6 a pound. It is used in fairly large proportions in the preparation of compound tincture of benzoin, and it can therefore be readily seen how the cost of manufacturing this medicine helped to increase the expense of conducting a hospital. Multiply this advance in price by the thousand different preparations which are used in the modern, progressive hospital, and then you need not wonder at the constant cry of boards of managers to keep expenses down. A product in all respects similar is now obtainable from the sweet gum tree, a tree which grows throughout the central and eastern United States. American styrax can now be bought at $1.50 per pound and is really superior to the styrax from the Levant.

Camphor is another drug that has been scarce for the last year, and it is gratifying to know that the government is interesting itself in this industry. Some years ago a large camphor grove was planted in Florida by private capital. For economic reasons, the production of camphor from this source was discontinued, but present exigencies make its resumption worth while.

For a time such valuable drugs as veronal, novocaine, salvarsan, and neosalvarsan were very scarce, although an American-made salvarsan, under the name "arsenobenzol," has been obtainable since shortly after the beginning of the war. This was due to the enterprise of a Philadelphia chemist. Since our entrance into the war, the patents held by Germans for the manufacture and sale (as a matter of fact, these drugs were always manufactured in Germany and only sold here), of these drugs were abrogated. Since the beginning of 1918, American manufacturers, taking advantage of the provisions of the Trading with the Enemy Act, have availed themselves of the privilege to obtain licenses from the government to manufacture these drugs, using the original patents. These synthetics, as they are generally called among chemists, are now officially called barbital, procaine and arsphenamine. The label on the containers of these medicines *must* have printed on it these government designated names, although they may also contain the original name. Thus the government has made available to the American physician a number of drugs that are important and absolutely essential for the cure and alleviation of the sick.

Ever since the start of the war, potash has been anything but plentiful, but, if price is any criterion, it is especially scarce at the present time. Practically the whole world has been dependent on Germany for this valuable substance. Immense deposits are available in that country, and naturally the war has cut off this source of supply. While this lack of potash has not in any way interfered in the treatment of the sick, as the sodium salts could always be prescribed in place of the potassium salts with just as good results, it has been a real inconvenience to those pharmacists who manufacture liquid soap. In the making of this soap a combination of potassium and sodium hydroxid is absolutely essential in order that the soap may remain liquid. Sodium hydroxid may be used alone but requires the addition of large quantities of alcohol, which materially increases the cost and makes its general use in the hospital prohibitive.

There is every hope, however, that American ingenuity and initiative will win out in the potash problem as it has in the other problems that have arisen from the war.

Let us make even the casual contact with our fellowmen vital; wherever there is flowing water there is a green spot.—Stephen Berrien Stanton, "The Hidden Happiness."

HOSPITAL ACCOUNTING

The Budget System Applied to Hospital Accounting—The Treasurer's Journal, Cash Book, Income Ledger, Endowed Bed Ledger, Loans and Notes Payable Book, General Ledger and Trial Balance

BY CHARLES A. PORTER AND HERBERT K. CARTER OF THE STAFF OF THE MODERN HOSPITAL

[Continued from December issue, p. 453]

BUDGET

SUMMARY OF EXPENDITURES FOR 1915 AND REQUEST FOR 1917.

Item	Request for 1917	Appropriation for 1916	Expenditures for 1915	Excess of request for 1917 over expense for 1915
Operating expenses:				
Corporation	$.....	$.....	$.....	$..... ....
Administration	....	....	....	....
Wards	....	....	....	....
Private rooms	....	....	....	....
Emergency ward	....	....	....	....
Dispensary	....	....	....	....
X-ray	....	....	....	....
Laboratories	....	....	....	....
Social service	....	....	....	....
Ambulance	....	....	....	....
Housekeeping	....	....	....	....
Steward's department	....	....	....	....
Laundry	....	....	....	....
Training school	....	....	....	....
Genera' house and property	....	....	....	....
Heat, light and power	....	....	....	....
Total for current expenses	$.....	$.....	$.....	$..... ....
Capital expense:				
Land	$.....	$.....	$.....	$..... ....
Buildings	....	....	....	....
Equipment	....	....	....	....
Total for capital additions	$.....	$.....	$.....	$..... ....
Grand total	$.....	$.....	$.....	$..... ....
Salaries and wages:				
Superintendent	$.....	$.....	$.....	$..... ....
Assistant Superintendent	....	....	....	....
Purchasing agent	....	....	....	....
Head nurses	....	....	....	....
Special nurses	....	....	....	....
Nurses	....	....	....	....
Orderlies	....	....	....	....
Ward employees	....	....	....	....
Clerks	....	....	....	....
Steward's department	....	....	....	....
Housekeeping	....	....	....	....
General house and property	....	....	....	....
Engineers	....	....	....	....
Firemen	....	....	....	....
Treasurer	....	....	....	....
Treasurer's clerk	....	....	....	....
Other employees	....	....	....	....
Total salaries and wages	$.....	$.....	$.....	$..... ....
Supplies:				
Coal	....	....	....	....
Medical and surgical	....	....	....	....
Office	....	....	....	....
Stewards	....	....	....	....
Miscellaneous	....	....	....	....
Total supplies	$.....	$.....	$.....	$..... ....

Fixed charges:				
Taxes				
Insurance				
Miscellaneous				
Total fixed charges	$	$	$	$
General expenses:				
Legal expense				
Current funds for stated purposes				
Grand Total	$	$	$	$

STEWARD'S DEPARTMENT

Item	Request for 1917	Appropriation for 1916	Expenditures for 1915	Excess of request for 1917 over expenditures for 1915
Salaries and wages:				
Supervision	$	$	$	$
Cooks				
Scullions				
Kitchen help				
Miscellaneous				
Dairy Products:				
Milk	$	$	$	$
Cream				
Buttermilk				
Butter				
Cheese				
Eggs				
Meat, Poultry and Fish:				
Beef	$	$	$	$
Mutton				
Pork				
Ham				
Poultry				
Game				
Fish				
Shellfish				
Groceries and Provisions:				
Flour and cereals	$	$	$	$
Bread and crackers				
Coffee, tea, cocoa and chocolate				
Yeast, baking powder, etc				
Confectionery and ice cream				
Sugar, molasses and syrups				
Lard and other shorts				
Spices and flavoring extracts				
Salt, pepper and condiments				
Canned meats				
Canned soups				
Canned fruits				
Canned vegetables				
Miscellaneous				
Fruits and vegetables:				
Potatoes	$	$	$	$
Apples				
Oranges				
Lemons				
Other vegetables				
Other fruits				
Miscellaneous:				
Supplies	$	$	$	$
Repairs				
Total	$	$	$	$

THE MODERN HOSPITAL

Expense and Revenue Statement for Month Ending _____ 191-

Administration Expense		Amount	General House & Property Expense		Amount	Hospital Earnings		Amount
Salaries			Heat, Light & Power:			Private Room Patients		
Stationery & Printing			Salaries & Wages			Guests - Board		
Postage			Fuel			Ward Pay Patients		
Telephone & Telegraph			Oil			Special Nursing		
			Lighting			Emergency Ward		
			Repairs			Dispensary		
Miscellaneous			Supplies			X-Ray Fees		
TOTAL - ADM'N			Miscellaneous			Ambulance Fees		
						Telephone Toll		
			Maintenance Bldgs.:			Refuse Sold		
PROFESSIONAL CARE OF PATIENTS			Labor			Miscellaneous		
Salaries & Wages			Supplies					
Staff			Materials					
Supt of Nurses			Miscellaneous			TOTAL HOSPITAL EARNINGS		
Head Nurses								
Nurses			Maintenance Equip't:					
Orderlies			Labor					
Ward Employees			Supplies			OTHER REVENUE OR INCOME		
Miscellaneous			Repairs			Donations - Unrestricted		
Apparatus & Instruments			Miscellaneous			Legacies - Unrestricted		
Equipment								
Medical & Surgical Supplies			Insurance			Income from Invts of		
Dispensary { Salaries			Taxes			Endowed Bed Fund		
Supplies			Rent			Partly Endowed Bed Fd		
Pathol Lab. { Salaries			Miscellaneous			General Endowment Fd		
Supplies								
X-Ray - { Salaries			TOTAL (G.H & P.)			Interest on Cash in Bk		
Supplies								
Social Service { Salaries			DEPARTMENT			Miscellaneous		
Supplies			EXPENSES					
Emergency Ward { Salaries						TOTAL OTHER REVENUE OR INCOME		
Supplies			Ambulance - Wages					
			Gasoline			APPROPRIATIONS from Special		
TOTAL (P.C. of P.)			Supplies			Funds to Meet Current Expenses		
			Repairs					
			Steward's Department			S		
			Meat, Poultry & Fish			P		
			Dairy Products			E		
			Groceries & Provisions			C		
CORPORATION EXPENSES			Fruits & Vegetables			I		
			Miscellaneous - S.H.			A		
Salaries			Training School:			L		
Stationery, Printing & Postage			Salaries & Wages					
Legal Expense			Supplies			F		
Interest			Miscellaneous			U		
Miscellaneous			Laundry:			N		
			Wages			D		
			Soap			S		
TOTAL (Corp'n Exp.)			Starch					
			Repairs			TOTAL (O.R. or I.)		
			Miscellaneous					
CURRENT EXPENSES			Housekeeping			TOTAL CURRENT REVENUE		
FROM SPECIAL FUNDS			Salaries			TOTAL CURRENT EXPENSES		
S			Miscellaneous			GAIN		
P						LOSS		
E			TOTAL (Dep't Exp.)					
C								
I								
A								
L								
F								
U								
N								
D								
S			TOTAL (Col. 1)					
TOTAL (Col. 1)			TOTAL CURRENT EXP.					

Form 25. Treasurer's Monthly Expense and Revenue Statement. Actual size, 12¾ by 14.

BOOKS OF THE TREASURER

The Treasurer should keep a Journal, Cash Book, Income Ledger, Endowed Bed Ledger, Loans and Notes Payable Book, General Ledger, and Trial Balance.

The Trial Balance is made up from the totals of General Ledger accounts.

Forms of entries, accounts, books and statements of the Treasurer are later shown in detail.

Donations, legacies, and investment returns should be paid direct to the Treasurer and acknowledged by him. He should pay all loans, mortgages, notes, taxes, etc., and make payments for securities purchased for investment. In a word, he should handle all receipts and expenditures relating to corporation affairs as well as

THE MODERN HOSPITAL

Month Ending _____ 191__

Surplus and Deficit.

Grand Total - Current Expense		Grand Total - Current Revenue	
Capital Expense		Profit on Investments Sold	
Grounds		" " Hospital Prop. Sold	
Buildings		Amount Charged off Funds	
Furniture & Fixtures		Material - As per Supt's Acct.	
Machinery & Equipment		Cash for Loss by Fire etc.	
Apparatus & Instruments		Capital Holdings Sold	
Miscellaneous		E	
TOTAL		T	
		C	
Supt's Uncollectable Accounts		TOTAL	
Treas' " "			
Loss or Depreciation Material			
" " " Invst Accts			
TOTAL		TOTAL	
SURPLUS		DEFICIT	
TOTAL		TOTAL	

Balance Sheet

Capital Assets		Capital Liabilities	
HOSPITAL PROPERTY & EQUIPMENT		Capital Account (Hosp. Prop. & Equip.)	
Land		Endowed Bed Fund	
Building		Partly Endowed Bed Fund	
Furniture & Fixtures		General Endowment Fund	
Machinery & Equipment		General Fund	
Apparatus & Instruments		O	
		t	
		h	
TOTAL		e	
		r	
		F	
INVESTMENTS		u	
Mortgages Receivable		n	
Bonds		d	
Stocks		s	
Real Estate			
Miscellaneous			
TOTAL			
TOTAL CAPITAL ASSETS		TOTAL CAPITAL LIABILITIES	
CURRENT ASSETS		CURRENT LIABILITIES	
Treasurers Acct's Receivable		Loans & Notes Payable	
Superintendents Acct's Receivable		Accounts Payable	
Material		Advance Payments by Patients	
Supplies		Overpayments by Patients	
Treasurer's Cash		Unclaimed Wages	
Superintendents Cash			
Interest Purchased			
Prepaid Insurance			
TOTAL		TOTAL	
Grand TOTAL Assets		Grand TOTAL LIABILITIES	
Deficit		Surplus	
Total		Total	

Form 26. Treasurer's Monthly Surplus and Deficit Account and Balance Sheet. Actual size, 11¾ by 14 inches.

make remittances to the Superintendent for operating expenses.

A four-column Cash Book should be used for the average hospital by the Treasurer. The debit headings are: income from investments, donations and legacies unrestricted, donations and legacies restricted, and miscellaneous; and the credit headings are: investments, investment expense,

remittances to the Superintendent, and miscellaneous.

In the large hospitals, where many unrestricted legacies and donations are received, a separate book should be kept in which these are entered in detail and the total posted to the Cash Book at the end of the month. In small institutions a two-column Cash Book may be used.

All cash received is entered on the debit side of the Cash Book, showing General Ledger account and income account (if it is an income entry), to which it should be posted. All cash paid out, as shown by the Check Book, is entered on the credit side and the name of General Ledger account to which it is to be posted shown, as well as the income account if expended as a charge against such.

Reference is made in the folio column of the Cash Book to the General Ledger or Income Ledger page to which the posting was made.

As soon as the Treasurer receives the monthly report of the Superintendent, a check should be deposited to the account of the latter to make up the deficit and to take care of bills payable in order that discounts may be taken and a suitable balance maintained.

Where employees are paid but once a month it is good policy for the Superintendent to draw on the Treasurer for the amount required to meet the pay roll. This has the tendency of reducing the cash balance required by the Superintendent.

It is not necessary for the Treasurer to keep a cash account in the General Ledger, as the Cash Book shows the balance on hand at any time.

The following table gives ordinary expenditures and accounts to which they are chargeable:

Item	Account chargeable to
Superintendent	Treasurer's account with Superintendent.
Taxes	Income account, investment account.
Insurance, prepaid	Prepaid insurance account.
Interest	Interest and discounts.
Interest purchased	Interest purchased account.
Loans and notes payable	Loans and notes payable.
Loans and notes receivable	Loans and notes receivable.
Mortgages payable	Mortgages payable.
Investments purchased (not including interest)	Bonds, stocks, mortgages receivable, real estate, other investments (name).
Legal expenses	Interest purchased account.
Miscellaneous	Sundries or proper account.

The cash received will usually be for items chargeable to the accounts as shown by the following table:

Item	Ledger account chargeable to
Superintendent	Treasurer's account with Superintendent.
Donations, unrestricted	Donations, unrestricted account.
Legacies, unrestricted	Legacies, unrestricted account.
Income from investments held in General Endowment Fund	Income from investments, General Endowment Fund.
Income from investments held in Endowed Bed Fund	Income from investments, Endowed Bed Fund.
Income from investments held in Partly Endowed Bed Fund	Income from investments, Partly Endowed Bed Fund.
Membership	Treasurer's account with Superintendent.
Income from investments of Special Funds (list each separately)	Income from investments of Special Funds (list each separately).
Income from unrestricted investments	Income from unrestricted investments.
Miscellaneous revenue on income	Proper account.
Cash, sales of investments	Stocks, bonds, mortgages, notes, or other investments (name).
Cash received, loans or notes payable	Treasurer's account with Superintendent.
Cash received, loans or notes receivable	Loans and notes payable account.
Interest purchased	Interest purchased account.
Prepaid insurance	Prepaid insurance account.
Endowed Bed Fund	Endowed Bed Fund.
Partly Endowed Bed Fund	Partly Endowed Bed Fund.
General Endowment Fund	General Endowment Fund.
Special reserve funds (list each separately)	Reserve funds account, proper reserve fund account.
Insurance companies for damages	Surplus and deficit.
Miscellaneous sources	Proper account.

Petty cash funds for the Treasurer and the Superintendent are entered direct from the Cash Book to the General Ledger and held as a Special Reserve Fund.

[To be continued.]

LITTLE JOURNEYS TO PLACES AND PEOPLE WORTH KNOWING

The Seventh Little Journey—To Evanston Hospital, A Beautifully Situated and Fortunately Endowed Hospital, Affiliated with Northwestern University

By MARGARET J. ROBINSON, R. W., Field Editor of The Modern Hospital

EVANSTON is about twelve miles north of the center of the city of Chicago and is the so-called most fashionable suburb of the North shore. It has a population of about thirty thousand people and reflects the cultured atmosphere typical of university towns. It houses considerable wealth. Its streets are well lined with beautiful residences. The people who live in them take a pride in the Evanston Hospital as their own and contribute all the necessary funds to care for its upkeep and its growth.

One July day, in quest of material for another Little Journey, I took the Elevated train marked "Evanston Express" and kept on going until the Elevated was no longer elevated, but ran along on the ground through open fields and past back gardens of the suburban dwellers who had migrated from the town to get better air and a family truck garden patch.

When I finally reached the station nearest the end of my journey, I found myself in the open and nothing that looked like a hospital in sight. Coming up the nearest street I saw a colored boy, a real southern darky, one of the thousands that have been coming to the north lately. I asked him if he would direct me to Evanston Hospital, and he answered this way: "Yes'm, if yo' carry yo'self over that field, it'll throw yo' right up into the front do' ob de hospital."

I carried myself over the field, but it didn't throw me into the front door. There were so many paths and the buildings were so scattered and faced in so many different directions that I could not quite decide which one to enter. I had visions of landing in the wrong place, perhaps of thrusting myself into the kitchens or the back door of the nurses' home or of meeting internes in negligee.

I finally decided to go into one building with a white-pillared entrance and veranda, which resembled a comfortable private residence, because there were several cars parked on the road at the end of the pathway from the front entrance. It proved to be the right guess, for it led me into the office, where I met Miss Adelaide Thompson, the superintendent of the hospital.

Miss Thompson began friendly relations by telling me about the fund of $265,000 which has been raised for a new building for private patients and for better laboratories. This building, when completed, will be so planned that it can give the best of hotel service, as well as all facilities for scientific diagnosis and nursing care.

The superintendent told me that the hospital was very fortunate indeed, and that it had many fairy godmothers and fairy godfathers, living and dead, who had provided for its welfare. There are sufficient funds for its maintenance, and, when the growth of its work requires additional building or equipment, its friends provide for that, too.

The Evanston Hospital owns five acres of land just three blocks from Lake Michigan. The buildings have been put up on the cottage plan. The pavilions are connected by covered bridges, all artistic and blending gracefully with the buildings and the surrounding trees and shrubbery.

Pansy beds flourish everywhere, while hollyhocks cover unsightly places in the rear of the buildings and group themselves in friendly fashion about doorways. There are garden seats and green-painted basket chairs with canopies over them, like the bath chairs used on the beaches of the Riviera.

Each porch and window looks out on some different view of the lake, on the trees and gardens, or the golf grounds.

A central hospital building houses the offices, operating rooms, children's wards, and wards for medical and surgical cases. It is an old building but has been kept in very good repair and shows, in common with the other buildings, a degree of cleanliness remarkable in these days when paint and repairs cost so much and good domestic help is so hard to get.

The children's wards have a delightful open-air room for the feeding cases, and the sick babies look as clean and sweet and contented as their own mothers would wish them to be. In the maternity pavilion, the work is stretching so rapidly beyond the size and capacity of the building that some day, if it is not made larger, the babies will spill over the sides of it.

The hospital maintains an out-patient department and a free dispensary service for medical and surgical, eye, ear, nose and throat cases, and for pediatrics. Much of the hospital service is either free or on a part-pay basis, and the pay rates are moderate enough to bring the hospital care well within the reach of people of moderate

incomes. There is a capacity of 135 beds. Maternity cases may be cared for in four-bed rooms for $2.50 per day, including the care of the baby. Patients who can afford to pay only a part of their expenses pay $1.50 per day, and no deserving case of illness is ever refused admittance.

A well-constructed service building houses the domestic help. Near this are earth tennis courts for the use of the house staff and the nurses.

The nurses' home, known as Patten Hall, is really a home, and not the usual dormitory of an institution. The big living room has a beamed ceiling and a great open fireplace, with a cradle woodbox of logs on the hearth ready to use. The mantel over it boasts of two twelve-branched brass candlesticks. Long cushioned window seats add to the "homey" atmosphere, and on a wall opposite the fireplace hangs a wonderful winter scene of a well-known western artist of Norse extraction who is known for his ability to express snow-blown hills and fields in the rose lights of setting suns.

There is a small, restful, brown-tinted library for the girls, a pleasant lecture room, and a well-stocked demonstration room containing several beds and long tables on a raised platform where demonstrations may be given in the use of utensils and the making of dressings and supplies.

The supervisor's rooms are well furnished and comfortable, and all bedrooms in the nurses' home are provided with a bathroom for each two rooms. In a small office near the matron's suite is the post office, with pigeon-holed letter boxes alphabetically arranged for the nurses' mail. Twelve supervisors and sixty-five nurses are using the home and the extra quarters in the isolation building at present.

Fig. 1. A private room in the Maternity Building.

The dining room at the home is, I think, the least institutional for one in a large hospital that I have yet visited—the kind of a dining room that is, to the girl accustomed to a home of good social standing, like the one in her own home, and, to the girl who has been denied them, an education in the social niceties.

I wish to report, also, that I have never eaten a meal in a nurses' dining room that tasted less institutional than the dinner I ate at the Evanston Hospital. That dinner consisted largely of corned beef and cabbage, but the corned beef was of the best cut and thoroughly cooked, and there was real English mustard to go with it. The potatoes were new ones, creamed with parsley and butter, and the cabbage was young cabbage taken that day from the vegetable garden. The dishes from which we ate were not thick and had a flowered border around them. Pretty silver and glass decorated the table, and a neat and well-trained maid served us.

Fig. 2. A scene in the children's ward.

Now, we all know that this kind of service is expensive and that a separate dining room for the nurses' home is not the best of economy, but, after all, is it not the best—and are not nurses of the type we want in the training schools entitled to it? And again, are not the people of Evanston, who make this hospital their own, doing a fine thing when they put up enough money to give the nurses who come here for training, affiliated university teaching and the right social conditions?

The junior nurses in training are given class and lecture work at Northwestern University and have the advantage of the laboratories there. In this hospital and training school nursing education is measured at its proper value and the home and social conditions are ideal for the young women who wish to enter there for training.

The contagious pavilion, built within the last few years, shows exceptionally good planning and construction for this kind of a building. On the exterior, the Spanish balconies and the small-paned swinging windows relieve the appearance of its institutional type. The interior has achieved a fool-proof sanitation in the material used, but

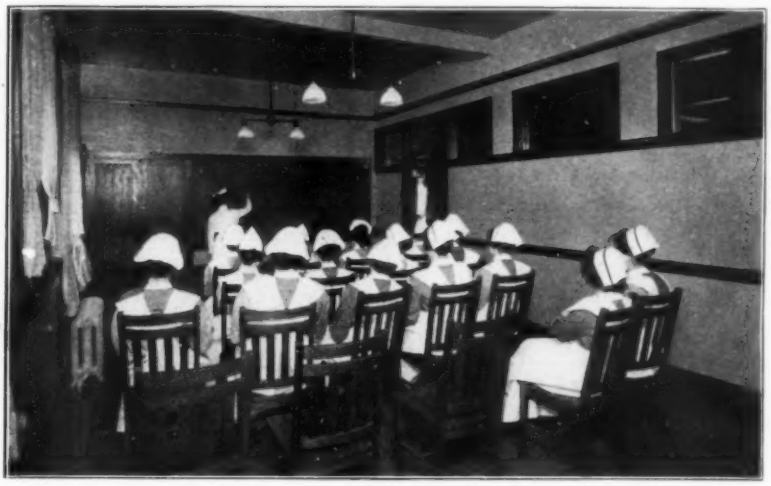


Fig. 3. One of the nurses's instruction classes held at Patten Hall.

is neither bare nor uninviting. The ceilings are high, the patients' rooms are of good size, and the ventilation is unusually clear. I noticed no perceptible odors anywhere. The whole building is very light. Bacteria which thrive in darkness will find no friendly corners in which to germinate in this contagious hospital; and, by the way, unlimited soap and water are the disinfectants used to keep out possible cross infections.

The halls, service rooms, diet kitchens, and, in fact, everything but the inside of the patients' rooms are neutral ground, distinctly clean areas. With the use of a careful technique, the isolation of the patient is complete. Large glass windows and doors from each room to the corridor make it easy for nurses and visitors to see patients and talk to them without coming into an infected area. One foot outside of each doorway is the deadline. The day I visited the hospital there were mothers sitting outside of these doors knitting while they talked to the children inside, isolated with diphtheria, scarlet fever, and various other things which had made them subjects for isolation at that time.

The plan for handling infected trays and dishes is a very good one. There is an open window space between each service room and diet kitchen. In this space is a high-pressure steam sterilizer worked with foot pedals, of the same type as the utensil sterilizers used in operating rooms. All dishes which are removed from patients' rooms are placed in the sterilizer from the service room side. After sterilization, they are taken out in the diet kitchen, which is a clean area. The diets are prepared by a clean nurse, who does not come into contact with the patients.

In the basement of the contagious building is a very complete equipment for the fumigation and sterilization of linens, mattresses, and other material which has come in contact with infected area.

When we went back to the main buildings, Miss Thompson took me through the kitchens. These were light and clean and well furnished with plenty of labor-saving machinery—stock pots, vegetable steamers, vegetable cutters, dish washers, dough mixers, and a lot of other things which pay for themselves speedily and save the cook's

Fig. 4. Four newcomers who have helped to swell the maternity rate in Evanston.

temper wherever you have to feed many people at one time. In these days, when domestic help is getting more and more difficult to procure, kitchen machinery is an absolute necessity to every hospital.

A motherly looking woman who had charge of the bakery was just taking a lot of brown-crusted loaves, which positively perfumed the air, out of the oven. The bread was crisp and the inside of it as light in color as loaves used to be before we ever heard of Mr. Hoover. I asked her if that was war bread, and how she managed to make it so good. She told us that the bread was made of a combination of rye, barley, and wheat, that she had experimented for some time before she was able to make a success of it, and that she had come to the conclusion that the success was due to the scalding of the dark flours before mixing the bread. I am passing this suggestion along, because I have tasted some awful experimental war bread on my travels and Mrs. Gilmour's ruling may spare others a like experience.

After our dinner I was shown the gardens—and wonderful gardens they were, even for these days when everybody's back yard is a-blossoming. I don't know just how much space they occupy, but you can imagine that they cover some ground when I tell you that there are plenty of fresh vegetables in season to feed patients, nurses and employees.

There was a whole field of corn, and even rows and rows of head lettuce, cabbage, beets, onions, green beans, tomatoes, and asparagus. Along the side of the garden was a row of trees, then a pathway, then a strip of heavy sod and borders and flower beds. Hollyhocks and delphinium, American Beauties, shaded poppies, Canterbury bells, and purple lantern flowers bordered in riotous confusion the eatable beauties of the gardens. Hollyhocks and delphinium, asparagus fern and purple topped beet greens—that doesn't sound like the end of a hospital story, but it is.

FROM OUR FIELD EDITORS' NOTEBOOKS

A Hospital Maintained by the Colored Race, Affording Nursing Education and Internship to the Negro—An Older Hospital with Progressive Spirit That Has Gradually Expanded Into a Most Modern Institution

The Miami Valley Hospital, Dayton, Ohio

The Miami Valley Hospital buildings are strung along at uncertain intervals in a homelike and uninstitutional way on a bluff over the Miami Valley. The front entrance is at the back and a main street ambles along in a friendly way among the buildings. Here and there plenty of lawn and shrubbery and garden space blend them all together in one harmonious whole. There doesn't seem to be any way to get a good photograph of the hospital buildings as a whole, unless you get a view from an aeroplane, and Dr. Crew, the superintendent, has not yet tried that, although Dayton is the home of the birdmen.

Fig. 1. Entrance to main building of Miami Valley Hospital.

The Miami Valley Hospital originally started as a Deaconess Home and hospital, but in 1903 it became a general public institution under the non-sectarian control of The Miami Valley Hospital Society. Since that time, the plant has been enlarged by several modern buildings, among the additions being the Snyder Memorial Service Building, the Smith Memorial Building, a building for laboratories, and the Patterson Surgery Building. Special provision is also made for the isolation of venereal diseases.

The vine-covered entrance to the main building is beautiful. It ought to take away the terror of the hospital from any frightened prospective patient and give him courage and faith in the good will of the hospital itself.

The Mary Belle Walter Nurses' Home, an endowed memorial building, gives adequate living quarters to the training school. It is now being enlarged to include many more single bedrooms for the nurses and new facilities for lectures and demonstrations, for teaching diet kitchens and for laboratories. The home is right on the edge of the bluff on the river, and the exterior has been made lovely with climbing vines, shrubbery and grassed terraces.

On the top of the new addition to the home is a splendid sleeping porch and roof garden and a solarium as well and attractively furnished for the girls who use it as a first class summer hotel or a well-ordered home of wealth. This room has flower-covered cretonne furnishings of gray hand-finished wood and willow, and flowered hangings, as well as fern baskets, bird cages and tea wagons of the same gray willow. The artistic furnishings, electric fixtures, soft-toned rugs, and the view of the river help to make the nurses' living rooms the most attractive I have seen.

The Patterson Surgery Building is unusually well built for its purpose. The upper floor contains the operating rooms and all other necessary rooms for a complete surgical service. Almost the entire building is walled and floored with marble. No expense has been spared to make it not only durable and sanitary, but artistic as well.

We speak of beautiful operating rooms and usually mean the beauty that comes from good equipment and lighting and perfect cleanliness. But the beauty of the main operating room in the Patterson Surgery is something more than that. Its marble walls and marble-domed alcove with the leaded glass windows give it an unusual artistic beauty of its own. The vines that make the outside of the hospital beautiful climb right over the window sills of the operating room. A marble-lined sterilizing room must be "a joy forever." You expect to see a sterilizing room with some paint peeling off somewhere from constant steaming, but you do not find it in the Patterson Surgery. There isn't any paint to peel off.

The lower floor of the Patterson Building takes care of the dispensary and the out-patient department and contains radiographic laboratories, dressing rooms, offices, and examining rooms for out-patients.

The Miami Valley Hospital is a shining example of the growth of an older institution that gradually adds new methods, new buildings, and new equipment and steadily raises its standard and its usefulness. Every department of the hospital gives one an immediate impression of active progress. The trustees and staff, Dr. Crew, the superintendent, Miss Eleanor Hamilton, the principal of the training school, and the capable assistants are all very much alive and moving forward.

The Frederick Douglass Memorial Hospital, Philadelphia

The Frederick Douglass Memorial Hospital in Philadelphia is one of the very few hospitals in the United States where men and women of the colored race may obtain internship and nursing education. This hospital is located in the section of Philadelphia which has large congested districts of negro population and is maintained largely by the funds raised by these people to help in the care and education of their own race. Dr. Nathaniel F. Mossel, the medical director and superintendent, in the last annual report of the hospital printed, makes a plea for further education for his people in the medical and nursing profession. He says, "Most avenues of employment other than that of domestic service are closed to colored women. In failing to extend equal advantages of proper medical education to colored people, the white people in authority not only rob them of a civic right for which they have fully paid, but their continued and forced ignorance of medical subjects will cause these very colored people to endanger the health and happiness of their white neighbor, since both are so closely associated, especially since large numbers of colored people are employed in domestic service."

There are in Pennsylvania more than 250 hospitals; of this number 166 receive state aid. The money in the last analysis comes from the pockets of the poor people, yet there is but one properly equipped hospital in the whole state of Pennsylvania where a colored graduate in medicine can be admitted to an internship, notwithstanding the fact that a year's internship is obligatory for registration. This hospital has capacity for upward of one hundred beds, twenty-five nurses and four interns, and it can not satisfy the demands made upon it by graduates in medicine seeking internship and high school graduates asking to become nurses.

Fig. 2. Main operating room of the Patterson Surgery.

The Douglass Memorial Hospital is on the list of approved hospitals given by the Pennsylvania Bureau of Medical Education and Licensure. The training school for nurses which it conducts fills an actual need for properly qualified colored women nurses to work among the sick of their own race.

DENTAL TREATMENT FOR WARD PATIENTS

Many Diseases Attributable to Bad Teeth—Work of Recently Established Dental Department Shows Need of Better Dental Care Among Patients

By L. A. SEXTON, M.D., Superintendent Hartford Hospital, Hartford, Conn.

It has been the experience of all leading practitioners to meet many persons who have consulted all the specialists of this and other countries, spending in many instances small fortunes to discover ultimately that all their troubles arose from bad teeth. The literature during the past few years has cited many authentic cases in which obscure diagnoses have been cleared up by the removal of bad teeth. The possibilities that may arise from dental conditions are too numerous to mention. This fact is now so well established that further comment is unnecessary.

In our annual report of a year ago, we emphasized the need of a dental department in the Hartford Hospital, and one of our benefactors came forward with sufficient funds to equip such a department thoroughly, with the understanding that the hospital would maintain a dental intern on the same basis as other members of the house staff. This department was equipped with the latest apparatus, an intern was secured, and work was begun July 1, 1918. Since that time, every ward patient whose physical condition would permit of it has been given a routine dental examination.

In the first three months of this service, during which time we have been getting the work organized, 525 examinations have been made, and 401 operations and treatments held. These figures clearly indicate the great need for better care of the teeth among this class of patients.

It is to be hoped, too, that the instruction received in this department will be far reaching in its benefit, not only to the patients themselves, but to their families as well.

We are glad to be among the first of the institutions in the country to offer routine dental treatment, free of charge, to all ward patients.

The MODERN HOSPITAL

EDITORIAL AND PUBLICATION OFFICE.
58 East Washington Street, Chicago.

EDITORS.
Henry M. Hurd . . . . Fidelity Building, Baltimore
Frederic A. Washburn . Mass. General Hospital, Boston
Winford H. Smith . Johns Hopkins Hospital, Baltimore
S. S. Goldwater . . . Mt. Sinai Hospital, New York
W. L. Babcock . . . . . Grace Hospital, Detroit
John A. Hornsby . 58 East Washington Street, Chicago
MANAGING EDITOR.
M. K. Chapin . . 58 East Washington Street, Chicago

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What a Laboratory of Experimental Social Science Might Mean to the World

We spoke last month of the opportunity which lies open in Belgium—an opportunity not merely to give—or, better, to pay a debt—but also to gain. We suggested that, in aiding Belgium to reconstruct her national life, this country and the rest of the world might well gain light on some of the most pressing problems of the day. It may be worth while to analyze this possibility a little further.

The Great War is over. Is the world going to be the same, except for the changes on the maps and the new chapters in the histories? There are few who do not feel convinced that the past is gone forever, and that the future holds more changes than we can yet realize. We hope for peace; but do we even expect tranquillity? The instinctive resentment and terror inspired by the very name of one of the political parties in a reborn realm on the other side of the ocean testify to the general apprehension that the forces which are now shattering three empires from within may not expend themselves without affecting—perhaps very powerfully—other countries of the world.

What do we know of these forces? They have just produced the greatest war in history. No one willed such a catastrophe; the blind agents who produced it are seeking cover, like amazed vermin, from the destruction they have wrought. Its origin is as independent of human volition as an epidemic of scarlet fever or smallpox; but, whereas we can to a certain extent foretell and control the course of scarlet fever or smallpox, our boasted science did not enable us to foretell or to control this infinitely more deadly epidemic. Nor does it enable us to foretell or to control the course of the conditions which are going to arise out of the war. What are those conditions? Is the Great War to be followed by equally great social changes? If so, what is the nature of those changes? Do they imply danger to organized society, and, if so, in what does that danger consist? Anyone who attempts to answer these questions categorically at present simply darkens counsel by words without knowledge. All that we can say with certainty is that society has been and is subject to stresses whose existence we know well, but of whose precise nature, degree, extent, and effect we are as ignorant as a blanket Indian is of the life history of the tubercle bacillus that decimates his tribe; and that, in consequence of that ignorance, we are very probably exposed to unknown perils and likely to use precisely the wrong method in attempting to avoid those perils. If we had a fraction of the exact knowledge in regard to social reactions that we have in regard to physiological reactions, we might hope, through its use, to avoid at least some of the dangers on which imagination is reluctant to dwell, but to which ignorance almost certainly exposes us. Unfortunately, no laboratory of experimental social science as yet exists, nor has there been hitherto any place where such a laboratory could be set up.

Fortunately—most fortunately, if we have the resolution to seize it—one of the by-products of the war is an opportunity, unprecedented in the history of the world, to set up such a laboratory. Belgium, swept practically clean of institutions, but sharer in every respect of our own international traditions, desires to work out a system of new institutions, better adapted than the old to the human needs which they serve. She has invited our aid, which it should be our pleasure and privilege to give as a small return for the service she has already rendered to civilization. Already repaid, however, we are offered payment manyfold over again, for is this not our laboratory with its culture medium ready to our hand, and does it not offer us hope of solving some of the most dangerous of our problems, provided we set about it quickly and earnestly enough? It is true that comparatively long periods of time are required to obtain valid results in observation of social phenomena. Events may not wait for us; our

experimental results may come too late. Yet the mere fact that somewhere in the world these problems are being carefully and dispassionately studied ought not to be entirely without effect in ameliorating the bitterness and avoiding some of the destruction which usually precedes social reconstruction.

It may be asked what all this signifies to the hospitals. The answer is that, if the hospitals are to be more than repair shops, raised above the dignity of the umbrella mender's solely by the amount of knowledge and the technical skill required in making the repairs, they must furnish their contributions to the solution on which so much depends. They have much to contribute—the laboratory tradition, the laboratory method, the scientific spirit. They have everything to gain by appreciating their own rightful places in the forces of progress.

Unofficial Complaints from the Board of Management

A correspondent in our Queries and Answers department complains of meddlesome interference on the part of committees from his board of directors. Sympathy is due the unhappy hospital superintendent who has on his board members who make a practice of visiting the hospital and wards at irregular hours, questioning employees through interest or curiosity and making much of what they find out. Very often their discoveries are presented at the next meeting in the form of complaints intended to convince other members of this board that the complainants alone are on the job. Then, again, other board members are constantly writing letters conveying unofficial complaints on pet subjects, usually of trifling importance.

Provided one has the courage of his convictions, there is a cure for this. One superintendent has changed his board from critics to staunch supporters by the following procedure: The irregular letters were ignored. Soon it was asked why these important communications were left unanswered. This started the ball rolling at the next board meeting. The superintendent pointed out that, if he was not a figurehead, the employees must take their orders from him and not from individual members of the board. Would it not be a better policy, he asked, if members of the board visited the wards, etc., in company with the superintendent, who would be able to answer their criticism at first hand? The board members were prominent business men in their community, and not one of them would have tolerated interference in his own business; so they could appreciate the arguments against appointing a superintendent and then tying his hands by interference.

The superintendent who takes this stand will not fail, for the majority of his board will themselves soon insist that those who have been in the practice of committing this annoying and almost unpardonable sin, must stop. Insist that complaints that are made at your hospital be made official. Unofficial complaints should be treated as anonymous letters. It will be surprising how soon many small complaints that are in the habit of coming to the ears of the superintendent will stop.

A Problem in Efficiency

We of the twentieth century worship efficiency—at least, we think we do. Our whole idea of efficiency really centers about the product. How can we turn out the largest number of paving bricks, or pigs of lead, or bolts of cloth? Let us see how we can speed up our machines to the highest point with the least loss of friction and the lowest expenditure for power, to turn out products as rapidly as they can. That has been our idea of efficiency.

Gradually the industrial world has been overtaken by the afterthought that, as no machine operates itself without the intervention of human beings, the human element is also a factor in efficiency. Still, the core of the problem has been the product, not the producer, and, as the machine was the element in the problem first studied, it remains the pattern and type of efficiency. So-called "scientific management" quite frankly aims to standardize human operations as the operations of a machine are standardized, to the end that these operations may produce the largest possible quantity of product.

Is this efficiency? Does the regime of productivity, under which the present-day world is run, coincide with that of efficiency? All the present and future possibilities of usefulness for workers are subordinated to the one necessity of "getting the work out." Men and women who can not "get the work out" are thrown on the industrial scrapheap, mere refuse to be shoveled out of the way.

A human rubbish heap is a very expensive institution to maintain, and, when there are really potentialities of usefulness in much or most of the rubbish, the question of the efficiency of a system that maintains such a scrapheap becomes embarrassing. What if we were to begin the study of efficiency from the other end—with the producer, not the product? What if, instead of saying "How can we produce the largest amount

of glassware, or ironware, or woodenware?" we were to say "How shall we raise this man or this woman to the highest point of total efficiency, physical, mental, and moral—efficiency not merely as a producer of this or that specific commodity, but as a contributor to the world's total assets—not merely as an industrial factor, but as a citizen, a neighbor, a father or mother, or other member of the family?" The question is utopian and visionary, you say. Very well, we dismiss it, merely calling your attention, in passing, to the first article in this issue, which describes "what sick and crippled men are doing for the Ford Motor Company."

The Ford Motor Company at last accounts was a solvent concern, devoted, not to philanthropy but to the production of motors at a safe and sane figure of profit. The Ford Company has found it thoroughly practical and financially profitable to study the possibilities of efficiency in men who would ordinarily be "scrapped" by most industrial concerns; and, in so doing, it has apparently solved—though quite empirically and unscientifically—a little fragment of the vast problem at which we hinted a little while ago. Is this not a problem for the "laboratory of experimental social science" of which we spoke in another editorial? And is it not just possible that unbiased study of this problem might discern a basis for a safer and more stable industrial order than the present?

Friendliness in the Hospital

We are told that first impressions are the most lasting. In no case is this so true as in the case of a general hospital. The majority of large general hospitals depend for their very existence on public opinion, and it behooves every superintendent to use his utmost endeavors to foster a friendly feeling toward the hospital among the citizens of his community.

There is only one way to attain this end, and that is by the closest attention to details, beginning with the inquiry desk, door porters, and switchboard. People do not come to the inquiry desk of a hospital for pleasure. They come to have their questions answered, and they expect a civil, intelligent answer. If illuminated with a smile, so much the better. The necessity of personal supervision is annoying to the busy superintendent, but this annoyance is not to be compared with that of everlastingly listening to complaints. Furthermore, one never knows what harm may be done by the rudeness or inattention of an irresponsible employee. A fifteen-dollar-a-week clerk may have it in her power to alienate a fifty-thousand-dollar endowment.

By an odd coincidence, several communications emphasizing this point have come to the editorial desk almost at the same time. One of these is the charming little paper by Mr. Asa Bacon on "The Heart of the Hospital," published elsewhere in this issue. We suggest that readers turn to it and then turn back and read this pointed remark from another superintendent:

"It may be all right for hospital superintendents to be so cold and unapproachable that the frost stands out on them like a pipe in a refrigerating plant, but if you will watch their hospital reports and deficits you will usually find that they are howling for additional endowment."

Americanization Work in Hospitals

Several of the hospitals in this country have done and are doing an excellent work in the Americanization of foreign-born patients and employees. On page 354 of the November issue we described the activity in this field of Lakeside Hospital, Cleveland, which employs a teacher to teach convalescent men and women to read and write the English language. The same hospital also conducts work in elementary arithmetic and the grade subjects. Americanization, however, does not mean conducting classwork merely; it includes anything and everything which is influential in eventually winning every immigrant, man and woman, with whom there is a chance, for America. We should be much indebted to any institution doing work of this kind for information in regard to the methods employed and the results secured.

A Nurses' Home With Some Commendable New Features

The Symmes-Arlington Nurses' Home, described on page 26 of this issue, presents some very attractive original features, chief among which are the wide sleeping porches. These porches certainly should go far toward making the life of the nurses at Symmes-Arlington Hospital wholesome and pleasant.

Some improvements in the plans may suggest themselves to practical administrators. For instance, since it was found necessary to house the domestic help in the basement, where the nurses' assembly room and kitchen are also located, would it not have been preferable to place the two latter rooms together and to segregate, so far as possible, the quarters for the domestic help with their toilet and bathing facilities? Awkward and undesirable complications sometimes arise out of confusion in such architectural arrangements.

We call attention to this small point, not be-

cause we wish to disparage an excellent set of plans, but because, to the best of our knowledge, no plans yet drawn have embodied perfection, and we believe that nothing is more helpful than a frank discussion of the defects, as well as the merits, of any plans to be studied. Architecture —and hospital architecture, in particular—is too often a sealed book to trustees and others who are responsible for hospital construction. We feel that the highest compliment we can pay to the plans which we publish—and publication, of course, implies faith in their value—is to assume that they are substantial enough to endure candid and searching criticism.

Venereal Disease Clinics in Pennsylvania

Information received from the Pennsylvania Bureau of Medical Education and Licensure is of considerable interest in connection with Mr. Davis' current series of articles on clinics for venereal diseases. Of 152 Pennsylvania hospitals to which a questionnaire on the subject was addressed, 74 maintain genito-urinary dispensaries; 154 have laboratory facilities for studying smear preparations, and 115, for performing Wassermann tests; 133 are equipped for intravenous administration of the newer remedies for syphilis, and 144 expressed willingness to assist in restricting or limiting the movements of persons admitted to their services who might be a menace to the public health. The total number of cases treated in these hospitals during 1917 was 11,161. It would be interesting to know how many other states can show as much activity along this line as Pennsylvania.

Enlarging the Field of the Hospital

Three of the most interesting articles in this month's issue of THE MODERN HOSPITAL appear in the Department of Dietetics and describe the independent working out at three widely separated points—Boston, Chicago, and Minneapolis—of one very important principle. This is the principle that the hospital is the logical educational center of the community in health and hygiene. The three cities mentioned are applying this principle through their departments of field dietetics, with most interesting results.

The family diet is, of course, a very large factor in the family health. In many cases the family health suffers because the mother or other purveyor for the household does not understand its food needs or does not know how to prepare the foods needed. In other cases, the family pocketbook suffers because the family purveyor does not understand how to carry out the doctor's dietary prescriptions without spending an excessive amount. Here the dietitian comes in as educator and interpreter. The work of Miss Gillett in Boston, Miss Joseph in Chicago, and Mrs. Titus in Minneapolis is well worth study. We hope to learn of more such work in other cities.

TRAINING SCHOOL OF PSYCHIATRIC SOCIAL WORK

Needs of Military Hospitals Present Problem of Emergency Training for Social Workers—Intensive Instruction Course Given at Smith College Entirely Successful

During the last ten or twelve years the number of social service departments in hospitals of this country has grown from two or three to over two hundred. But, strange to say, education of social workers has not kept pace with the growing appreciation of the value of social work in hospital practice. Few attempts have been made to give special training for work with medical cases, and no systematic training for social work with mental and nervous cases appears to have been undertaken previous to the course offered by the Training School of Psychiatric Social Work, except an apprenticeship training given in the social service section of the psychopathic department of the Boston State Hospital to five or six students at a time. Since the supply of specially prepared workers to meet the demands of civilian hospitals is by no means sufficient, the necessity of emergency courses to meet the needs of military hospitals is clearly indicated. Even before the present course was started, the need for a number of psychiatric workers was expressed in the Division of Neurology and Psychiatry of the Surgeon General's Office.

The National Committee for Mental Hygiene, in view of the undoubted future need of large numbers of lay workers to assist physicians in the reconstruction work for war neuroses, appointed a subcommittee of its war work committee to consider the matter, consisting of E. E. Southard, M. D., Boston, chairman; William L. Russell, M. D., New York; L. Pierce Clark, M. D., New York; Walter L. Fernald, M. D., Waverly; and William A. Neilson, Ph. D., LL. D., Northampton. At about the same time, Smith College, which was considering several war courses for a possible summer school, became interested in the subject. The result was an eight months' course, consisting of two months of intensive instruction, given at Smith College, Northampton, in July and August, and six months of practical work in various centers. An appropriation from the Permanent Charity Fund, Boston Safe Deposit and Trust Company, trustee, made it possible for the trustees of the Boston State Hospital to release the chief of social service of the Psychopathic Department on part time to serve as director of the training school.

A remarkably fine group of women were attracted to the school, averaging high in personal effectiveness and intelligence. There were sixty-three students, who came from twenty-one states and twenty colleges. Forty-eight had been employed in various occupations, as follows: teachers, 12; social workers, 16; librarians, 3; secretaries, 3; students, 10; other occupations, 4. Ten students had already done the required practical work, five were advised not to go on, two were obliged to drop out, and forty-six are now engaged in the practical work of the

course. The practical experience consists of social case work under direction in hospitals and social agencies dealing with psychiatric cases. The forty-six students, who are now engaged in the practical work of the course, are placed as follows:

Baltimore	
Phipps Clinic	6
Boston	
Boston Dispensary	2
Boston State Hospital	3
Massachusetts General Hospital	3
Psychopathic Hospital	8
Red Cross	1
Brooklyn	
Brooklyn State Hospital	1
New York City	
Charity Organization Society	5
Cornell Clinic	2
Manhattan State Hospital	6
Neurological Institute	5
Philadelphia	
Society for Organizing Charity	2
University Hospital	2

The instruction consisted of courses in sociology, including social case work, psychology, including mental testing, and social psychiatry, which were all carefully correlated and directed toward the practical object of the training, that is, to prepare social workers in dealing with neuropsychiatric cases to perform three functions—(1) to secure social history essential to medical diagnosis by interview or correspondence with informants or by interviewing patients; (2) to assist in the reeducation of patients in hospital if pressure of work upon the physicians makes such lay assistance desirable; (3) to undertake the social readjustment of discharged patients.

The course in social psychiatry, conducted by Dr. Edith R. Spaulding, director of the Psychopathic Hospital, Bedford Hills Reformatory, was a completely new experiment. The course was planned as a whole with the different topics treated by visiting physicians. There were twenty-five lectures in the course by physicians eminent in psychiatry in this country and in Canada. The difficulty of giving such instruction to a group of young women without previous preparation was recognized; and it was the general opinion among the lecturers that the course was entirely successful. Clinics held at the Northampton State Hospital were an important part of the instruction.

OCCUPATIONAL THERAPY, VOCATIONAL RE-EDUCATION AND INDUSTRIAL REHABILITATION

Conducted by DOUGLAS C. McMURTRIE, *Director Red Cross Institute for Crippled and Disabled Men* and ELIZABETH G. UPHAM, *Advisor in Occupational Therapy, Milwaukee-Downer College.*

TRAINING IN MOTOR MECHANICS FOR CRIPPLED SOLDIERS

Choice of Trades Shows Automobile Mechanics a Universal Favorite with the Men—America Follows Example of Other Belligerents in Offering Training Courses in This Popular Subject

By DOUGLAS C. McMURTRIE, Director, Red Cross Institute for Crippled and Disabled Men, New York City.

Motor mechanics has proved a most popular subject of instruction for crippled soldiers who are being retrained to become self-supporting, self-respecting workers. In fact, the trade is almost too popular, say directors of Canadian schools in which hundreds of disabled soldiers are today being trained in new occupations.

Practically every Canadian soldier who is asked to choose from among the various trades in which classes are operated selects automobile mechanics. But most of the men have to be dissuaded from their intention and turned into other channels of industry. Otherwise, every crippled soldier in the Dominion would be looking for a job as automobile mechanic after he had completed his course of training, and the supply would far exceed the demand.

Canada, England, Germany, and India are among the

Disabled American soldiers learning automobile repairing at the reconstruction hospital, Fort McHenry, Md.

belligerents that offer training courses in motor mechanics to the disabled men of their own forces, and America, in line with the program of reeducation that she has adopted, is teaching her wounded and disabled soldiers automobile repairing. At Fort McHenry, where the United States operates a large reconstruction hospital, one of the trades taught to convalescent soldiers is automobile mechanics. A one-armed or a one-legged automobile mechanic will not be a new thing under the sun once the general public has been committed to the principles of reeducation.

In British Columbia gasoline-engine classes were organized soon after the wounded began returning from overseas. Vancouver, Victoria, Esquimault, and Westhaven provide instruction in motor mechanics. In Victoria the Military Hospitals Commission and the board of education together operate a fully-equipped motor repair shop in which men who wish to become chauffeurs are taught. Men trained in this course conduct a well-patronized jitney stand in the town. Those who wish a thorough course preparing them as motor mechanics are sent to Vancouver, and later to the new workshops at Esquimault and Westhaven. The Military Hospitals Commission has made an arrangement whereby war cripples at Vancouver are taught driving at an excellent automobile school in evening classes. Then, too, through the generosity of the owner of this school, any disabled soldier may attend his day classes free of charge. Several men from other parts of British Columbia are kept in Vancouver on a maintenance allowance while receiving training.

There is a big field for workmen in this trade in Saskatchewan, as there is through all the west, and thorough courses are given for war cripples by the University of Saskatchewan. Another course is at the Provincial Institute of Technology and Art at Calgary. Disabled men so trained compete successfully with the average sound mechanic. One soldier, who lost his right arm, is preparing with his chum to have a small flour and grist mill in one of the centers of the Peace River district. His course in automobile mechanics and gas engineering will enable him to take charge of the power plant (stationary gas engine), to run a wood-cutting plant, and to mend automobiles as a side-line. His chum will attend to the milling proper.

While the wounds of English soldiers and sailors are healing at Queen Mary's Convalescent Hospitals at Brighton and Roehampton, the men are afforded the opportunity of learning motor mechanics. The workshop at Roehampton is fitted up as a model garage in charge of disabled men who, besides being skilled instructors, understand the special problems of the war cripple. A "Briton" motor chassis, working models of engines, three center drilling and turning machines, a drilling machine, and benches fitted with the vises and tools needed in repair work are included in the equipment. An electric motor gives power for the machines. The class has a 15-20 horse power Darracq motor car for instructional purposes.

Germany, too, has excellent training courses for war cripples who take up motor mechanics. At Düsseldorf on the Rhine, by the cooperation of the provincial and city administrations and local welfare societies, war cripples are being trained in many skilled trades. Here the course in automobile mechanics was established at the request of the motor-repair shop owners who needed workmen and could not obtain able-bodied men. Within a very few months the pupils of the first class had successfully repaired fourteen different types of motors whose mechanisms they understood thoroughly.

Even in far-off India, the trade of automobile mechanics takes hold of the imaginations of the natives. It must be a curious sight indeed to see India's disabled sons repairing an automobile or studying the intricacies of mechanics in the shops that are operated at Queen Mary's Technical School in Bombay. These curly-bearded, olive-skinned warriors will not be left on the highroads to beg, after they have served their country, but will be trained for useful trades in which their physical handicaps do not prevent them from competing with able-bodied men.

* * * *

THE OCCUPATION CURE FOR SHELL SHOCK

Substitution of New Ideas Is the Important Part of Treatment—Physical Training Is Secondary

Shell shock and its treatment is the subject of a very interesting paper by Dr. W. Allen Starr, emeritus professor of neurology, Columbia University, in a recent article in the *Touchstone*.

"The most extreme type of neurasthenia," is his description of this dreaded affliction. It consists of an almost complete mental paralysis coupled with great physical depression. Deep, stolid brooding gives way at times to great mental and emotional excitement, but at all times the patient is without control of his faculties. His whole mental state is governed by his memories, conscious and unconscious, of past horror.

The way to recovery, obviously, lies through the mind, and the physical basis of recovery though important is secondary. The only way in which one idea can be driven out is by the substitution of a new one, and so the whole procedure of treatment is based upon the creation of new interests in the patient's mind. According to Dr. Starr, what is necessary is "an occupation cure rather than a rest cure."

What occupation is chosen depends, of course, very much upon the patient. Whatever it is, two things are necessary—it must elicit the patient's interest and it must require attentive effort to insure success. Physical work, such as building and gardening, mechanical work with machines and engines, intellectual work, such as music and architecture require—all are good, depending on the man. Every element of work—pay, encouragement, and competition—which will elicit interest and stimulate exertion, must be utilized.

Hand in hand with the mental training which is to bring the shell shocked soldier back to normal, should go physical care of the best sort. "Good food, good country air, long-continued hot baths followed by cold showers producing a circulatory reaction, massage, physical training and out-door exercise—hydrotherapy and electro-therapy have beneficial results," according to Dr. Starr, though he is careful to warn the reader to hold them to their secondary place. Mental and emotional training is the important thing, and, in this connection, Dr. Starr emphasizes the importance of removing the patient from his family whose sympathy is too likely to revive rather than dispel dangerous memories.

Men whose minds have seemed completely gone as the results of shell shock have been trained back to normal life, so that it seems no case is hopeless. The one thing necessary in all this treatment is the constant, firm belief that help is to follow. "Here the personality of one who directs the cure is all important," says Dr. Starr. "A firm will, an intelligent sympathy not too emotional, a confident power in direction and assertion, and a conviction of success which is contagious, these are the elements in directing mind which will aid in the achievement desired. 'Faith can move mountains,' and faith in recovery will go far to secure it."

OCCUPATIONAL WORK AMONG MENTAL PATIENTS

The Principle of Class Treatment with Individual Attention Yields Excellent Results—Emphasis Placed on Recreation and Diversion as Well as on Occupation

By HENRIETTA G. PRICE, Occupation Department of the Henry Phipps Psychiatric Clinic, The Johns Hopkins Hospital, Baltimore, Md.

The occupation department of the Phipps Clinic was started when the clinic was first opened five years ago.

Our general plan is to arrange that each patient who is able to do so shall have definitely prescribed work each day under an instructor, and work planned to be carried out by the nurses on the wards.

The leading principle of Dr. Adolf Meyer, director of the clinic, is the training in habits which yield satisfactory results to the worker and which are easily controlled, guided and stimulated by the helpers. Few conditions exist, under which man cannot do something that is at least productive and thereby fundamentally satisfying. A hospital in the city naturally does not offer all the advantages one might derive from a hospital in the country (hence the hope that there may be a convalescent home and country annex added at not too remote a time); yet one will always need resources such as can be used under any roof.

Fig. 1. A corner of the basket room.

As far as possible, the occupations are chosen so as to assure reasonably rapid satisfaction from finished results. The cultivation of interest in the use and purpose of what one makes, as a gift or as an article of distinct general usefulness, is an important factor, as is also the teamwork and everything that takes the patient into spheres of thought bigger than himself.

Another important point is that the interests should dovetail with more lasting interests after the discharge of the patient. Everybody needs a hobby of productive sport, and sometimes it is actually possible to turn one of the occupations to practical use for more or less self-support.

The classes are arranged, starting at nine o'clock, into hour or three-quarter hour periods. Most classes have from eight to twelve patients, although often the afternoon classes for women are much larger.

On the fifth floor we have class rooms equipped for basket-work, brush-making, book-binding, rug-weaving and finer weaving, but during the summer months these classes are all held on the roof garden. On this floor is also a small kitchen for the use of the patients.

Besides the class rooms on the fifth floor, we have a carpenter shop in the basement, where all picture frames and small pieces of furniture, basket-bases and brush-backs are made and painting and staining is done. These classes are for men and are held both morning and afternoon, with longer hours than the classes held on the

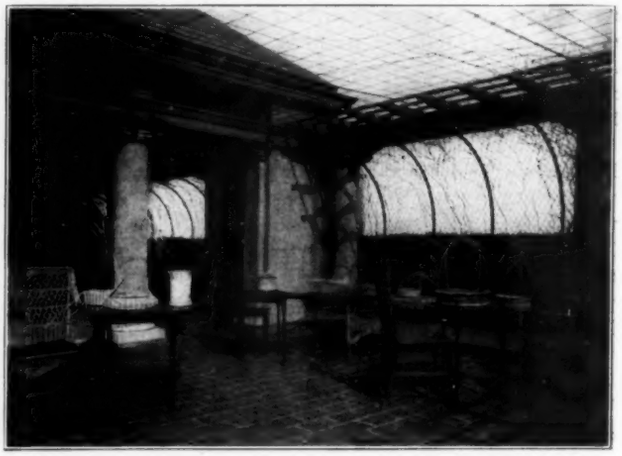

Fig. 2. Roof garden, where classes are held during the summer.

fifth floor. It is interesting to mention here the case of a patient who, by means of the jig-saw, unconsciously took a prescribed exercise to which he had strenuously objected.

In deciding upon special work for a patient, we always try to encourage him to make his own selection, and, if possible, to work in some originality. The patients are treated as individuals, never as a class. We feel that a patient is always more interested in something he is making for a friend or a relative than in something he is doing "just to be kept busy." We have been very fortunate in this respect, and last year the patients, particularly the women, bought over two-thirds of their own work. The work that is left is generally disposed of at sales which are held twice a year in the clinic.

I should say that about nine-tenths of our patients work. Of course, a great many of these are too disturbed or depressed to come to class, and these cases have special and individual instruction. It is most important that bed patients should be interested, and, with the aid of

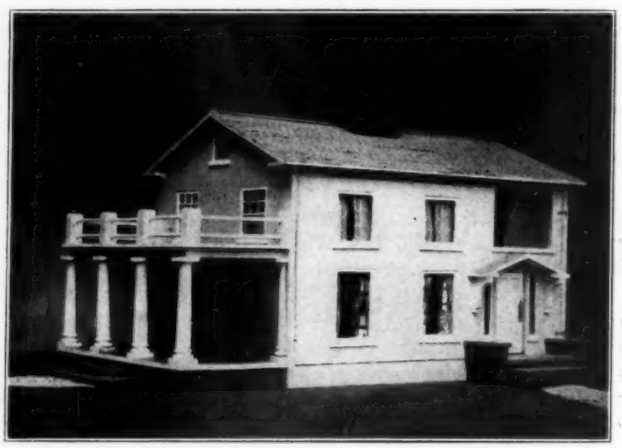

Fig. 3. Doll house made by a patient.

certain appliances, it is not difficult to find work for them which is both instructive and diverting.

Diversions and recreations are most important and are employed in connection with the occupation department.

A large party is planned for all the patients at least once a month in the large recreation hall on the fifth floor or on the roof garden. Small parties are given each week in the wards. Folk dancing is taught once a week

Fig. 4. Rug loom used by classes in weaving.

for the women, and a dancing class has just been started for the men. In summer outdoor games and drills are given. Plays, musical entertainments, and moving pictures are arranged for the evening during the winter.

A course in occupation work is given to the nurses, the pupil nurses having two weeks in the department and the probationers three weeks. They work in classes with the patients in addition to their own regular class. A special nurse may take up any craft with her patient if she cares to do so.

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SATISFACTORY SETTEES FOR CONVALESCENT USE

Products of Patients' Work-Shop Meet Requirement and Overcome Difficulty of High-Priced Material

By MARY E. RUHL, Supervisor of Occupation, The Burke Foundation for Convalescents, White Plains, N. Y.

As our convalescent work grew and we insisted upon more outdoor hours, it seemed impossible to provide enough settees about the extensive grounds. The park type of iron-framed bench, while satisfactory, is both

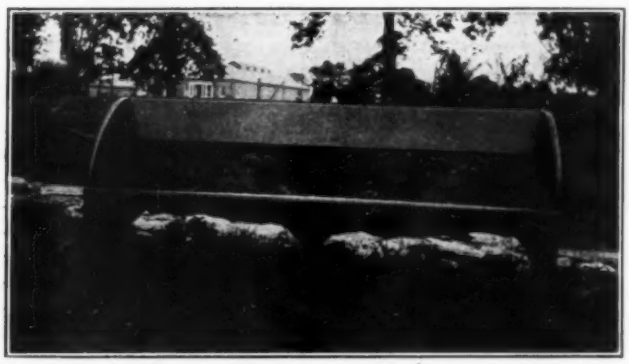

Fig. 1. Settees longer than the standard size (five feet to accommodate three persons) are made of heavier lumber and with three legs.

expensive and difficult to obtain, and the use of concrete was found to be but limited and decorative. Seats with comfortable backs, strong enough to be left out in all kinds of weather and light enough to be moved about to permit choice of sun, shade, wind, group-companionship, etc., were found to be the type which would best suit our needs. Seats distributed at distances, also, we felt would induce patients to walk to them and would thus take them comfortably away from various depressing atmospheres.

Settees made of cypress boards, in varied designs, have proved very satisfactory. The pictures indicate the construction clearly. Lumber 14-inch width makes up well, although the seat may be narrower. Getting comfort into them depends on the following details: The seat-board should be low to the ground, pitched backward and set forward beyond the edges of the end pieces to give added depth; the back board must slope well up and back; and the end-pieces must be cut to give the necessary semireclining posture. This last precaution is of fundamental importance.

A length of five feet, accommodating three persons, is a serviceable one. Longer seats of heavier lumber may be made, however, with three legs. Screws or nails are found equally satisfactory. Hard-finish paint makes the seats fit for year-round use out of doors.

We have found the better designs, finished in the natural

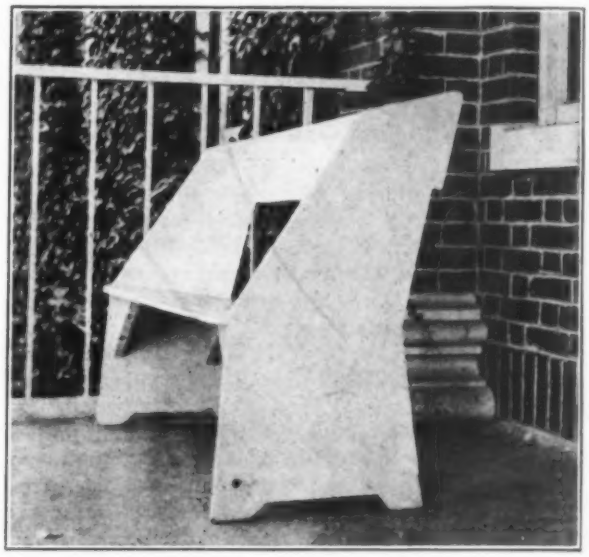

Fig. 2. Type of satisfactory settee for convalescents constructed in the patients' workshop at The Burke Foundation for Convalescents, White Plains, N. Y.

wood, attractive enough to be placed indoors, in our reception and sitting rooms, etc., and a sale of them is developing in this vicinity for garden, lawn, and porch purposes. Cost, with lumber at normal price, is from $2.50 to $5 per bench, including handicapped patient labor at 20 cents per hour.

Tax-Free Alcohol for Hospitals

There has been much confusion on the subject of the cost of alcohol for hospital use. Many institutions are paying $7 a gallon and more for this essential hospital supply. It should be generally known that government regulations permit a hospital which is an incorporated or chartered institution, endowed and conducted not for individual profit, to purchase alcohol for scientific purposes in barrel and half-barrel quantities. A new ruling eliminates a former additional requirement that, in order to be entitled to this privilege, the hospital must maintain a training school for nurses.

DISPENSARY AND OUT-PATIENT WORK

Conducted by MICHAEL M. DAVIS, Jr.
Director of the Boston Dispensary.
Please address items of news and inquiries regarding Dispensary and Out-Patient Work to the editor of this department, 25 Bennett street, Boston, Mass.

CLINICS FOR VENEREAL DISEASE*

II.—Organization and Management—Practical Problems Involved Illustrated by Concrete Example—Methods of Administration

By MICHAEL M. DAVIS, JR., Director of the Boston Dispensary.

The practical problems of running clinics for treating syphilis and gonorrhea are probably best illustrated by describing a concrete example. At the Boston Dispensary, the diagnosis and treatment of syphilis and gonorrhea has been divided among three clinical departments and the laboratory.

Syphilis for both men and women has been treated in one department, which also cares for diseases of the skin. Gonorrhea for men has been cared for in the genito-urinary department, and gonorrhea among women in the gynecological department. In many of the dispensaries and out-patient departments, gonorrhea for both men and women is treated in a single department, and in the smaller institutions both syphilis and gonorrhea are cared for frequently in a single clinic. At the Boston Dispensary there existed a problem not only of maintaining and increasing the efficiency of each individual clinic, but also of coordinating their service. This was a somewhat more complicated problem than in a small institution with few clinics treating venereal disease or only a single clinic. But even in a small institution the relations between the clinic and the laboratory, and the clinic and the department of health require attention and organized coordination.

The first step in the Boston Dispensary was to adopt the principle established some years ago, that all syphilis should be the responsibility of a single department of the dispensary. This does not interfere with the special attention, for example, to those difficult feeding cases of infants which are frequently found in conjunction with congenital syphilis. The pediatric department has special charge of those, but the department of syphilis has the cases on record and will see the patients with the other members of the family who are usually involved in the disease, at periodical intervals.

The organization at the Boston Dispensary includes the following:

1. A clinic for syphilis (also dermatology), treating men, women and children; maintained Monday, Thursday, and Saturday mornings, and Monday, Wednesday, and Friday evenings.
2. A clinic for gonorrhea among men (also other genito-urinary diseases); maintained every week-day morning and Monday, Wednesday, and Friday evenings.
3. A clinic for gonorrhea in women and girls, maintained as part of a general gynecological clinic every week-day morning; gonorrhea cases are especially referred for treatment on two mornings weekly; an evening clinic (Mondays and Fridays) was opened in October.

Admitting hours: Mornings, 8:45 to 10:30; evenings, 6:30 to 8:00. Fees charged: Mornings, 25 cents for the first visit, 10 cents for succeeding visits. Fees are remitted whenever necessary. The evening clinics are pay clinics, designed to be self-supporting (and with salaried medical staff). Fees in evenings: $1 for the first visit, 50 cents thereafter.

Extra fees for medicines, injections, certain laboratory tests: $1.50 in evening clinic, $1 in morning clinic.

Salvarsan (or diarsenol) injection: $1, plus actual cost of amount of drug used. Arsphenamine injection, $1 (arsphenamine supplied free for certain types of cases by the State Department of Health).

The number of cases treated in these clinics is approximately as follows:

Kind of Clinics—	Visits per year
Clinics treating dermatology and syphilis (mornings)	7,000
Clinics treating dermatology and syphilis (evenings)	4,000
Genito-urinary clinics for men (mornings)	11,000
Genito-urinary clinics for men (evenings)	15,000
Gynecological clinic (gonorrhea cases—mornings)	3,000
Total	40,000

1. Finances

The average cost per visit in the morning clinics, where the medical staff is unsalaried, is approximately 50 cents, not including, of course, the arsphenamine or its equivalent, but including all other medicines and supplies as well as salaries of the employed persons and the general overhead charges. Of course, in the evening clinics, where the staff is salaried, the cost is approximately double. The income from the fees paid by patients pays approximately half the expense of the morning clinic and the entire expense of the evening service. In the evening service, in fact, there is a surplus, not allowing for overhead and depreciation, and, even with these included, there is probably some surplus from the genito-urinary evening service to be credited.

2. Coordination of Clinics and of Public Health Policies

For the purpose of coordinating procedures in the various clinics treating venereal disease, and also of bringing in the public health relationship in a suitable way, there is a committee on venereal diseases at the Boston Dispensary. This includes the chief of the clinic treating syphilis, chief of the genito-urinary clinic, the chief of the clinic treating gonorrhea among women, the pathologist in charge of the clinical laboratory, the director of the dispensary, and the director of the division of communicable diseases of the Massachusetts State Department of Health.

The functions of this committee are to outline policies which will interrelate the work of the clinics, as, for instance, in those matters in which the clinics have a common interest—in reporting disease, for example, and relating therewith to that of the public authorities. There are other matters, also to be considered, such as the relation of the clinics to the laboratory, and the procedures in getting the laboratory tests in relationship with cases which have both syphilis and gonorrhea, or in different members of the same family who are under treatment in more than one of the three venereal clinics. The working of this committee has been an encouraging indication that, even in an organization large enough to require considerable specialization in the treatment of syphilis and gonorrhea, there can be necessary unification of policies and work. The important matter of coordinating

*The next article in this series will cover the subjects of social service and follow-up.

the clinics treating venereal disease with other clinics in the same institution is also assisted by this committee through the membership of the executive officer of the dispensary.

3. Purpose and Scope of Venereal Clinics

The work of these clinics has three aspects: (A) clinical; (B) public health; (C) social.

A. The aim of the clinical work is to provide accurate diagnosis and efficient treatment carried through to completion.

B. The aim of the public health work is to deal with the diseases as contagious diseases, with the aim of preventing the spread of infection through personal, family, or occupational contacts or through vice, and also to protect the community against those who, if insufficiently treated, are likely to become public charges, due to physical breakdown in late stages of syphilis and gonorrhea.

C. The aim of the social work is to prevent the breakup of families, due to the existence of venereal disease, and to aid when necessary in maintaining employment and self-support.

4. Methods of Clinic Administration

In so far as necessary, the patient receives a physical examination. This is often of particular importance in cases of syphilis. In taking the patient's "history," the extent to which items other than the data concerning the immediate infection are recorded is left to the individual judgment of the physician. In the syphilis clinic, however, the taking of a fairly full general history is encouraged. In general, the histories taken include three kinds of items, which correspond to the three aims of the clinic.

A. Clinical items of present and previous infection, personal and family history.

B. Public health items. Discretion must be used as to the amount of this information which can be secured in various individual cases. The male social worker in the genito-urinary department takes most or all of this part of the history. It will be noticed that the record form is so devised as to be on a separate list, which is filed away from the clinic history card, and that, by tearing off the stub which contains the patient's name, information could be tabulated for statistical purposes without possibility of identification.

C. Social service items are taken on such cases as are to be referred to the social service department. These come on a separate record card which is kept in the social service department file.

D. The admission of patients to the venereal clinics is part of a general admission system of the whole dispensary and is carried out in the main hall where the admitting desks for new patients (under the charge of the social service department), the cashier's desk and the record room are located. All fees, with a few exceptions, are collected at the cashier's desk in the admitting hall. Certain fees, such as those for injections and fees paid in installments, are collected in the clinics themselves.

In the actual administration of the clinics, the patients, whether old or new, come from the admission hall to the waiting room of the clinic with their admission cards and a slip which is a receipt for the admission fee they have paid and which contains the number given them in the order of their arrival. They may thus be called in this order. The clerk sees that the patients are called into the clinic so that the doctors are not kept waiting. The medical records are kept on cards. These are sent from the central record room and are placed in order by the clerk so that the doctor gets the record and the patient together. In the genito-urinary clinic for men, which has run as high as 125 cases at a clinic and often equals 100, the physician in charge sees all cases for determining diagnosis or outlining treatment at the revisit, the other members of the staff being in the treatment room. It has often been found convenient to see the new patients at the close of the clinic, when ample time can be given to go into the cases as carefully as is necessary without holding up large numbers of men who are anxious to get back to work and who need only a brief period with the physician in charge to determine what change, if any, should be made in the treatment which has been already outlined. It must be borne in mind that in a clinic of this type the average patient is found to pay from about fifteen to twenty visits, so that the proportion of new cases in the total clinic is quite small. The staff of the syphilis clinic includes a neurologist, one of the heads of the neurological department of the dispensary, who is in attendance once a week in the syphilis clinic. All syphilis of the central nervous system passes through his hands and the administration of lumbar puncture is also under his charge. The laboratory used by these clinics is the clinical laboratory of the dispensary, which has a clinical pathologist and two technicians. About half the time of the laboratory is required by the venereal clinics, and the remainder, by the other clinics of the dispensary. The Wassermann test and the test for the gonococcus, are done in the laboratory, as well as usual bacteriological examinations. The genito-urinary department is also provided with its own microscope, so that smears can be examined in the clinic immediately.

The administrative staff actually engaged in the clinics include:

Syphilis clinics: A head social worker, who is also in charge of all the social service in the venereal disease division, an assistant social worker, a nurse, and a clerk, who is employed also in other departments and whose services are used only part of the time.

Genito-urinary clinics: A man social worker and a man clerk.

Gonorrhea clinics for women: One or two nurses in attendance at examinations, a social worker, and a clerk, whose services are required only part time.

5. Relationship to Health Department

Under the state law of Massachusetts passed in 1918, cases of syphilis and gonorrhea in the infectious stages must be reported by number to the State Department of Health. If they fail to keep up treatment satisfactorily in the clinic or in the hands of a private physician, they are further reported by name, and these names are sent to the local health department (in Boston, for example), which then has the responsibility of getting them back under treatment. The clinic falls in with this plan by regarding a certain group of cases as so-called health department cases, i. e., those taken up with the Boston Health Department, with the aim of insuring or enforcing treatment, or of preventing the spread of infection. Cases falling within the following classes should become health department cases whenever, in the opinion of the chief of the clinic or of the director of the dispensary, the circumstances justify. All cases in the following classes shall be brought to the attention of the chief of the clinic by his assistants or by the nurse or social worker. Cases which are taken up with the health department shall all pass through one person, in order to provide a center of unifying information and procedure. The actual conference with the Boston Health Department may be either by this person or by the director or the chief of the clinic.

The types to be considered as possible health department cases include: (a) patients who are exposing members of their families and who refuse or neglect to cooperate as requested; (b) patients who, by reason of oc-

cupation, expose others to infection and who refuse or neglect to cooperate as requested; (c) prostitutes; (d) infectious patients who have failed to report for treatment within six weeks and who are then reported by name as required by the state department of health.

It is the policy of the service to bring to examination—and, when necessary, to treatment—all the members of the family of a patient with syphilis and gonorrhea.

Cooperation in the suppression of vicious resorts, etc., is also part of the service. Information concerning such may be furnished the proper authorities, with the consent of the chief of the clinic or the director. The person above specified keeps memoranda of all instances.

6. Adaptation to the Small Clinic

In the small clinic the treatment of syphilis and gonorrhea, for both sexes, will generally be combined under one chief. A committee for the coordination of different elements working in the clinic with one another, and with the public health authorities, should be formed and may well include the chief of the clinic, the superintendent of the institution, the head of the laboratory, and the health officer of the city or town, or his representative.

The staff of such a clinic would include the chief and probably one or two assistants. The executive staff may be only one person, who, in that case, should have the training of a social worker. It is highly desirable, however, to have the services of at least a pupil nurse for attendance upon women patients or for other duties, and to make some provision for clerical service.

The equipment of such a clinic is described in the first article of this series. Its management should follow the same principle as that described for the large clinic. The record forms used and the follow-up system can be substantially the same.

Care should be taken, particularly in a small community, not to send out letters which might be identified by those living at the residence of the patient as coming from a dispensary. At large institutions in great cities this difficulty is usually overcome either by sending out these letters without any imprint on the envelope or by using the address of an individual (the social worker, for instance) on the outside of the envelope. It is very desirable to have such a return address printed, in order to know when incorrect addresses have been given.

Those who have not been accustomed to the careful organization and management of clinics, but have rather been accustomed to allowing them to run themselves, may be somewhat troubled by the demands which appear to be made for the supposed sake of efficiency. The fact is that efficiency can not be secured without definite organization and careful planning, adequate staff, and regular supervision; and this is true in a hospital, a clinic, a factory, a government, a household, or anything else. The maintenance of efficient clinics for treating syphilis and gonorrhea is now demanded by a national program, to which the hospitals and departments of health of the country must respond. They need not be deterred by lack of money, for, under present conditions, money for such a purpose can be secured from either public or private sources if there is courage and wisdom in asking for it.

Economy

An employer of labor who fails to discover by physical examination what tasks his workmen are best physically fitted to perform and who does not protect the health of his workers is needlessly wasting man power, though his workmen may not be idle one minute of the working day.

HOME SERVICE AND REHABILITATION

The Bulletin of the Chicago Chapter of the Red Cross Summarizes the Duties We Owe Our Returning Men—Gives List of Books We Can Read to Best Advantage

In the Chicago Chapter Bulletin of the American Red Cross for November 29 is found the following very helpful summary of the duties of the Home Service in relation to the rehabilitation of our disabled soldiers and sailors.

"1. To bring solidly behind the disabled men at all stages of the reconstruction process the moral support of his family, remembering that he is at this time just as much in the service of his country as when at the front.

"2. To assist the men, through the competent legal service at the command of the Home Service Section, to secure the benefits of the War Risk Insurance Law and especially the provisions for compensation and insurance.

"3. To urge upon disabled men, as opportunity presents, the wisdom and necessity of taking full advantage of the Government's plans for their care and training.

"4. To encourage them in the early and critical stages of their vocational training and of their return to employment, when the struggle to overcome the mental and physical handicap is most acute.

"5. To help bring about a reasonable and sympathetic attitude on the part of employers, which shall give every handicapped man a real chance, while avoiding the danger of tempting him to forego the necessary training for the specious attraction of an immediate, temporary, or perhaps unsuitable job.

"6. To mold public opinion so that it will discountenance trivial and demoralizing entertainment and hero-worship, and maintain a constructive attitude which, while demanding a square deal for the returned soldier, shall expect from him every reasonable effort to ensure his self-support.

"7. To supply information, encouragement, legal, medical, and business advice, and other service, when acceptable and necessary, in like manner as is now being done for the families of men at the front."

The same issue gives an excellent but of course merely suggestive bibliography on rehabilitation which it recommends to all those who wish to obtain a wider acquaintance with the subject.

1. Todd, John L.: "The French System for Return to Civilian Life of Crippled and Discharged Soldiers," Publications of the Red Cross Institute for Crippled and Disabled Men, Series I, No. 5.

2. McMurtrie, Douglas C.: "The War Cripple," Columbia University War Papers, Series I, No. 17.

3. Harper, Grace: "Vocational Reeducation for War Cripples in France, "Publications of the Red Cross Institute for Crippled and Disabled Men, Series II, No. 1.

4. Brock, L. G.: "The Reeducation of the Disabled," *Nineteenth Century and After*, London, 1916, LXXX, 822-835.

5. Jarrott, Thomas L.: "The Problem of the Disabled Soldier," *American Journal of Care for Cripples*, 1917, iv, 226-243.

6. Hutt, C. W.: "The Future of the Disabled Soldier," London, 1917.

7. Federal Board for Vocational Education:
Bulletin No. 5 (Reeducation Series No. 1), "Vocational Rehabilitation of Disabled Soldiers and Sailors."
Bulletin No. 6 (Reeducation Series No. 2), "Training of Teachers for Occupational Therapy for the Rehabilitation of Disabled Soldiers and Sailors."
Bulletin No. 15 (Reeducation Series No. 3), "The Evolution of National Systems of Vocational Reeducation for Disabled Soldiers and Sailors."

8. The Red Cross Institute for Crippled and Disabled Men, 311 Fourth Avenue, New York City, has issued several series of publications in this field, some intended for the general reader and others for those interested in special or technical aspects of the problem. Every person who is interested in this subject should write to the Institute and ask to be placed on the mailing list.

9. *American Journal of Care for Cripples*, 2929 Broadway, New York City. From the beginning of the war this quarterly has reprinted a large number of the most significant articles appearing in other domestic and foreign periodicals.

10. *Recalled to Life*. A journal devoted to the care, reeducation, and return to civil life of disabled sailors and soldiers. Edited by Lord Charnwood and published by John Bale, Sons & Danielsson, Ltd., Oxford House, 83 Great Titchfield Street, Oxford Street, London W.

HEALTH AND MODERN INDUSTRY

Conducted by BARROW B. LYONS
Superintendent Delaware Hospital, Wilmington, Del.

RECONSTRUCTION

War Kindles Spirit of Service—Former Selfish Materialism of Industry Will Lessen

Reconstruction! It is a word that thrills all who live and think, for in the mind of each it conjures up the vision and hope that all he has longed for is at last becoming real. The entepreneur visualizes a vast world expansion of industry and trade; the laborer sees dawning a day of power and plentitude for the working classes; the professional man pictures a coming Renaissance of arts and sciences; and the social reformer foresees a new civilization in which men shall live as brothers.

The war has loosed the forces both of disintegration and of construction. The old world falls to pieces to be rebuilt again. In self-protection, men are questioning old habits and customs, breaking away from tradition, seeking new landmarks by which to steer, and trimming their sails to catch the winds of progress that sweep forward to undiscovered lands.

Yet there is a compelling, guiding principle which has impregnated the minds of men in all countries. The war has rekindled the spirit of service to a transfiguring degree. Men find that they can no longer successfully live for themselves alone. Fear and the impulse of self-protection has taught a lesson in cooperative social action which a thousand years of peace could not teach; and the terrific commercial rivalry which will follow the war will mould new human relationships to form the solid foundation for a better civilization than man has yet enjoyed.

In all phases of life new social relations will be manifest, but particularly in industry, where the selfish materialism of the past is fast beginning to crumble. In order to meet the economic competition of European countries, American industries must adjust the human relations in their shops so that the least amount of friction and the greatest cooperation will exist, and so that each human unit will be able to render the best possible service.

Nothing is more important in this respect than the health of the workers. For those who are interested in enabling the worker to function at his greatest capacity, the Department of Health and Modern Industry has been inaugurated in THE MODERN HOSPITAL. Its objects are:

1. To acquaint those engaged in industrial, surgical and medical work with the best work being done by others.
2. To discover to what extent that which is being done is practical.
3. To discover improvements which might be made in this work and to point the way to progress.
4. To formulate a program to secure the more general adoption of surgical and medical attention for employees in industries throughout the country.

Readers of this department are invited to make its work more useful by giving what information they can regarding the best work which is being done in the field of medical supervision and physical examination of employees. Statistical data which will prove the value of this work are needed more than anything else, in order to convince more manufacturers that it is "a paying proposition." The cooperation of everyone interested in the movement of health in industry is needed.

SUCCESSFUL HEALTH SUPERVISION BY A MANUFACTURING COMPANY

How a Pioneer in Industrial Health Work Has Developed an Important Service to Employees — Norton Company Conducts Periodic Examinations

BY J. J. WEBER, Associate Director, Boston Dispensary, Boston.

The Norton Company and the Norton Grinding Company are the largest manufacturers of grinding wheels and grinding machinery in the United States. Their plants are located at Worcester, Mass., have over thirty acres of floor space, and give employment to about forty-five hundred workers. Up to the time the United States entered the world war, these workers, except for the office force, were all men; but since then about three hundred women have been at work in the shops.

To maintain the morale of an organization of this size is no mean task. It requires a leadership and a constant adjustment and readjustment of human relations that call for the highest type of human engineering. These activities, as distinguished from those connected with the actual manufacture of its product, the Norton Companies have termed "employee relations" activities. To be more specific, they have to do, among other things, with the health and safety of the workers, the sanitary conditions under which they work, questions of employment, housing, feeding, technical training, general education, insurance, pensions, and recreation.

The principal departments that carry on this employee relations work are the departments of health and sanitation, safety engineering, and employment. They are under the general supervision of the service committee, made up of the head of the department of health and sanitation and the works managers of the two companies.

The spirit that motivates this work is best told in the words of the preface to the company's pamphlet on employee relations activities recently published:

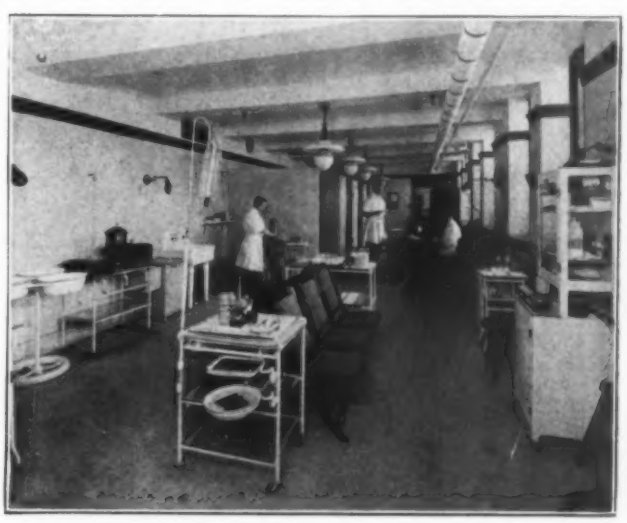

Fig. 1. Main Hospital of the Norton Company, Worcester. Three examination and treatment rooms are seen in the rear at the left, and the door at the extreme end leads into the recovery room.

"The management does not regard this work as being in any sense philanthropic. Paternalism is carefully avoided. There is no desire in any way to interfere with the private life of employees. Opportunities are presented for advancement with increase in wages, and environments are created that should influence them to use their incomes wisely. It is the policy of the company to pay for what it buys whenever it has occasion to purchase time, effort and thought of its employees, just as it does when it buys raw material. Likewise, each employee is expected to render efficient service in return for his wage just as a customer is expected to pay for what he receives.

"No work is done which the owner of a small shop would not do himself on a small scale as a matter of duty to his employees. Growth of the shop is almost invariably accompanied by loss of touch between the management and the workman. These departments are simply seeking to reestablish the good feeling and tolerance which has so much diminished under modern management systems. Experience has convinced us that this is an economic measure entirely aside from improvement in morale, because it costs less to conduct these activities through a centralized department than to accomplish the same thing by the effort of men whose whole time should be devoted to production."

A dozen articles might easily be written on the various phases of the industrial service work of the Norton plants, on their educational work, including Americanization classes, their housing project on Indian Hill, their methods of employment, their war gardens and patriotic parades and pageants, and their recreational activities. I shall, however, content myself with an account of the activities of their department of health and sanitation.

A TIME-TESTED PLAN OF SUPERVISION

The main hospital from which the activities of this department radiate is a well-arranged, fully equipped suite of rooms in the basement of the administration building, including not only the main treatment room, but also a room for the general physical examination of employees, with individual dressing rooms leading from it, three examining and treatment rooms, a room for the examination and treatment of eye cases, and a recovery room. As the plants cover several acres, there are, in addition to this main hospital, four subhospitals, where minor cases are treated. When necessary, these cases are examined the following day by the surgeon on his daily visit. If the cases are more serious, the patients are sent to the main hospital if they can walk to it; otherwise, the surgeon is summoned to the subhospital.

Connected with the hospital are four doctors, one of whom is always on duty between the hours of 8 a. m. and 6 p. m., while all are on call between 6 p. m. and 8 p. m. Five nurses, one of whom is a man, are also connected

Fig. 2. A typical scene in one of the examining rooms of the Norton Company.

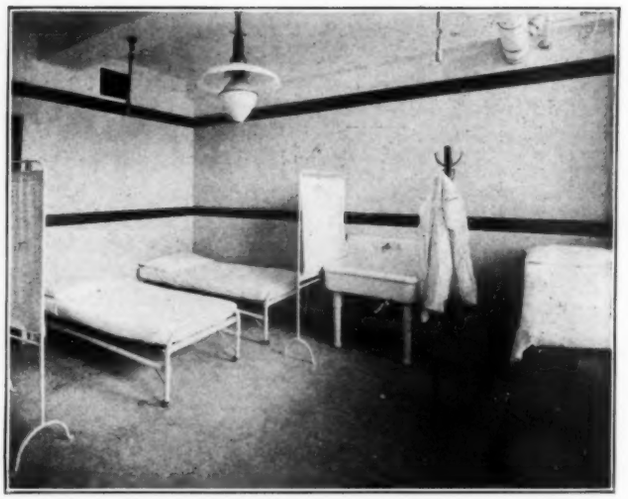

Fig. 3. The recovery room in the hospital of the Norton Company at Worcestor, Mass.

with this department. Recently, moreover, the company has employed a registered nurse who acts in the capacity of a medical social worker and visits the homes of employees for the purpose of doing any medical or social service work that it may be found necessary to do.

Every new employee and every employee who is transferred from one department to another is given a complete physical examination. Periodic examinations about once in six months are also made of all men having defects of a nature serious enough to require careful watching. This practice has advantages for both the company and its employees. It enables the company to give each man the kind of job for which he is physically fitted. It gives the doctor an opportunity to tell the employee of any defects of which he may not be aware and to enlist his interest in overcoming them when possible. It protects the company from employing men who are undesirable because of serious defects, and it protects the workers by preventing the entrance of contagious diseases into the factory. It makes the employee feel that the company is taking a personal interest in him and that he can feel free to go to the doctor at any time for further advice.

Few men who apply for work are without defects. Minor defects, however, do not prevent their doing most of the work to be done in the plant. Some departments, where, for example, there is intense heat, heavy lifting to be done, or more than the average amount of dust, do call for higher restrictions, and only those physically fit are assigned to work in them.

Dr. Clark thus sums up five years of experience with physical examination of employees in a factory of about 2,800 employees:

"1. The average workman does not object to physical examination, and the majority of them are pleased to have such examinations made: (a) on account of the information it gives them; (b) because it throws them in intimate contact with the doctor to whom they are going to apply afterward in case of sickness or accident.

"2. A physical examination cannot be too complete. The most complete form of examination the average man requires takes ten minutes, provided a urinalysis is not done.

"3. Periodic examinations of markedly defective men tend to keep such employees in good condition and prevent an increase in their defects.

"4. As it is impossible to employ men who have no physical defects, a physical examination enables us to place men in departments where they will suffer the least risk and maintain the highest degree of physical efficiency.

"5. A fresh examination each time a man is transferred from one department to another prevents the possibility

of a man's being assigned to work for which he is not physically adapted.

"6. A periodic examination of the entire force once a year is not necessary because: (a) the examination is made each time a man is sent from one department to another; (b) all men having any sickness or accident apply to the hospital and are there examined if there is anything indicating the necessity for such an examination.

"7. The number of rejections, even with a rather highly restricted list of defects, is very small and is no argument against, but rather an argument for, the advisability of physical examinations."

Once the man becomes an employee of the company he receives free surgical service for all accidents. This service is usually rendered within fifteen minutes of the accident, due to the thorough manner in which the foremen have been drilled in the necessity for prompt treatment of injuries. As a result of this prompt treatment the time lost on account of accidents has been reduced to a minimum. Although safety engineering has greatly reduced the number of serious accidents, it can not reduce the slight minor cuts and small injuries where the personal element plays so important a part.

DIAGNOSIS GIVEN, BUT TREATMENT AVOIDED

The health and sanitation department does not attempt to treat sickness where a doctor's continued care is needed. In such cases the employee is sent either to his physician or to a hospital. This department does, however, attempt to make a correct diagnosis and to treat minor sickness which, neglected, might develop into a more serious condition. Examples of these are head colds, sore throat, constipation, asthma, beginning bronchitis, and the like. If an employee needs to receive careful, continued treatment for any ailment, he is usually sent to his own physician or is given a list to choose from, if he has no physician, a situation not infrequently met with. In other words, prolonged treatment of the sick is not considered to be the legitimate function of a shop hospital. Its function is rather prophylactic—prevention by immediate, simple treatment, observation and advice. Any employees who are discovered with incipient tuberculosis are sent to the state sanatorium and upon their return are assigned to suitable employment, usually out of doors. During the employee's absence his family receives a percentage of his wages.

The care of the toilets and wash rooms, the inspection of bubbling fountains and cleaning of cuspidors, and the removal of rubbish and garbage, is the responsibility of the department of health and sanitation. The actual work is done by custodians.

A great deal of health education work is done by the company. Monthly health bulletins are placed in the pay envelopes. These often fall into the hands of members of the family. Not infrequently employees come into the clinic for examination and advice as the result of reading one of the pamphlets. Illustrated lectures on health and safety topics are frequently delivered in the auditorium.

The company maintains a cafeteria which is mainly patronized by its office employees, though any employee is at liberty to use it. The workmen, however, prefer to go to one of six dining rooms scattered about the plant. Into these they can go with their overalls on and, if they have brought their own lunch, supplement it with a bowl of hot soup, a cup of coffee or tea, or a piece of pie. After they have finished eating, the men sit about chatting, smoking, or playing cards until they are called back to work at one o'clock. The food for the cafeteria and the various dining rooms is all cooked in one central kitchen and transported in thermos cans, thereby being kept hot until served.

Commenting on the work of the health and sanitation department of the Norton Company, Dr. John F. Curran, one of the company's industrial surgeons, said:

"Our methods open up vast possibilities in the field of preventive medicine, where everything depends on the individual. Much can be done by education through the schools, by articles in papers and magazines, and by lectures and motion pictures, but the most effective means is through direct contact with the individual. After our examination he knows that he is either sound or defective, and, if the latter, he receives the necessary instruction to remedy his defects. He knows the type of work for which he is best fitted, and, finally, he knows what a thorough examination is.

"If every workman possessed this knowledge, we would have a campaign of preventive medicine which would affect the whole country."

* * * *

HEALTH WELFARE WITHOUT STINT

A Huge Work Shown in the Latest Annual Report of the Medical Department of the Colorado Fuel and Iron Company

The *Industrial Bulletin* of the Colorado Fuel & Iron Company, dated September 25, 1918, contains a report of the medical department of the company for the preceding year. The report is interestingly edited and well illustrated. It makes excellent propaganda material for anyone interested in convincing the management of a plant that it pays to protect the health of the workers.

The Colorado Fuel & Iron Company has reached a very high point in the development of its medical department. The extent of the work can be judged from the following report of the number of cases treated from July 1, 1917, to July 1, 1918:

In the mining camps, 39,722, including medical and surgical, eye and ear, and dental; in the Pueblo Steel Works Dispensaries, 81,899, including surgical, medical, and physical examinations; Pueblo school children, 2,192; in the Minnequa Hospital, 8,244, including medical, major and minor surgical, eye and ear and hospital dispensary; in all a total of 182,057.

The Minnequa Hospital staff consists of three surgeons, three internists, two neurologists, two dentists, an oculist an aurist, a pathologist, an obstetrician, a roentgenologist, an anesthetist, and a chemist. Seven men comprise the Steel Works Dispensary staff and twenty-eight mine surgeons and three dentists that of the mining camps. In addition, there is a large corps of nurses, including three visiting nurses.

In commenting upon the medical work, Dr. R. W. Corwin, chief surgeon, says that Wassermann examinations are made as a routine in all cases admitted to the hospital. It is quite as true of the industrial army as of the military army, he says, that the wounds of those suffering from venereal diseases heal much more slowly than the wounds of those not so infected. He says further:

"Increasing attention is being given to care of the teeth. Examinations at the hospital and at the dispensary have proved that a large percentage of employees are known to have decayed teeth and pyorrhea and suffer from toothache and blood poisoning. A person suffering with pain and poisoned until half sick is unable to do his work satisfactorily, loses time, and is apt to meet with accidents due to lack of mental alertness.

"The war has proved that the foot is an essential part of man. If he has aching, infected, and deformed feet, clad in shoes that increase his trouble he is not one hundred per cent efficient, and oftenest meets with accident.

"It is not too much to say that every working man, like every fighting man, needs to be examined from head to foot and kept fit."

LETTERS TO THE EDITOR

How the Great News Was Received in Paris

[We know that our readers will be glad to learn, from the following letter of Miss Margaret J. Robinson, how the great news of the German surrender was received in Paris. As previously explained, the services of our field editor, Miss Robinson, have been lent to the American Red Cross in Paris for certain publicity work requiring expert knowledge of hospitals and hospital work.—ED.]

Have had a wonderful week since the news of November 11. I feel very lucky to be here; tramped the boulevards with the joy-mad crowds until my feet gave out.

Monday morning I marched up the Rue de Rivoli with the Red Cross Americans from headquarters to the Place de la Concorde, where the crowd took the mourning off the statue of Strassbourg that had been there since 1870, and later stood on a big captured Boche gun and led the Americans singing the Star-Spangled Banner. All the years I put in my music were worth while, just for that.

The Americans owned Paris during the celebration. Just to wear the uniform was enough to get the crowd's enthusiasm. You would see groups of men and women form circles and dance around American soldiers. The boys from the hospitals, many of them bandaged and on crutches, were enthusiastically embraced by the French women, much to their embarrassment, and everywhere it was "Vive l'Amérique!" "Merci, merci, mademoiselle!" "Viva la Croix Rouge Américaine!"

Camions, camionettes, old dilapidated taxicabs, rented for almost anything the cabbies asked for, rushed about decked with flags and filled with shouting French, British, and Americans. All that was needed to start a procession was a leader and a big French and American flag. The processions and their personnel were certainly cosmopolitan, and one saw mostly all the allied nations arm in arm, and everyone was singing and cheering the others.

The Americans were not satisfied with the amount of noise made, as there were no fireworks or noise producers for the mob, so the American drivers of the United States cars and camions used the back-fire of their engines, and I tell you they made some noise.

The siren from the Arc de Triomphe and Notre Dame that had sounded the alerte for the bomb raids announced the signing of the armistice, and the big anti-aircraft guns boomed out joyfully all day Monday, minus their shrapnel barrage.

Later one of the nurses I know and myself, escorted by an American colonel, went to the opera. Mme. Marthe Chénal, the prima donna, draped in the tri-color, and with a great Alsatian bow on her head, sang the Marseillaise, a Belgian staff officer in uniform, with his Legion d'Honneur and Croix de Guerre on his coat, sang the Brabançonne, and the leading tenor sang the Star-Spangled Banner. You can imagine the enthusiasm of the audience! It was worth the 19 francs for the seat I occupied. After the opera (Monna Vanna) was over, Mme. Chénal sang the Marseillaise in her tricolor from the lighted balcony to the mob outside, and the crowd that packed the Place de l'Opéra solid joined the chorus. Paris was transformed; you can't imagine what it meant to have the windows opened and the boulevards and streets lighted!

Sunday will be another great day. The Allies will march under the Arc de Triomphe.

I suppose it will be a few months yet before I get back, even if the war is almost over. There are big problems yet to be worked out, and I don't want to lose out on anything worth while.

Yesterday the city of Paris gave a reception at the Hotel de Ville to the American Red Cross. The halls of the building were most gorgeous, the mural decoration wonderful. The place was ablaze with thousands of electric lights in the crystal chandeliers, and the floral decoration artistic as only the French can make it. Papa Joffre was there, and I stood quite close to him. Ices were served (they are rare here), and all the champagne that the crowd could drink.

Give my best to everyone, and please write often. I haven't as yet had a scratch of a pen from anyone. You people over there in God's country don't know what it means not to hear from home and how long it takes for letters to get to us.

MARGARET JANE ROBINSON,
Pension Galilée, Paris.

* * * *

A Chinese Hospital Which Serves the Poor

To the Editor of THE MODERN HOSPITAL:

This is, of course, a mission hospital. It has been established in Tehchow only three years, but the origin of the work in this locality dates back thirty-eight years, at which time it was located at P'ang Chuang, a small village fourteen miles distant. From the beginning, the work has been among the farming community. We have never had any number of wealthy or even fairly prosperous patients; and, though this has obvious advantages, still it has often made the question of support a very difficult one. But, in more recent times, since the advent of the China Medical Board, our path has been smoother, for it has cooperated with the parent board, the American Board of Commissioners for Foreign Missions, in maintaining our hospital. The line of their assistance has been notable in providing more workers. Two additional physicians are now on the field, and we are only awaiting suitable candidates to avail ourselves of their promise of an additional nurse and a business manager. All told, we have a staff of four foreign physicians, one foreign-trained nurse, who is principal of the training school for nurses, two Chinese men physicians, one Chinese woman physician, and fourteen nurses in training, both male and female, who are, of course, also natives.

Since I know the work of the women's hospital most intimately, I will tell you some of the aspects of the work and patients least likely to be familiar to the readers of your magazine. I was most surprised, on first coming here, to see what a different range of diseases we have from that commonly seen at home. In my intern days, the most frequent diagnosis was "tonsils and adenoids," and a very close second was "acute appendicitis." Here I have never seen a case of the latter, and, though the former is sometimes seen, it is almost impossible to get permission to operate. Our most frequent operation is for "T. B." in some of its many forms, glandular and bone being by far the most common. Then there are rectal diseases of every sort and description. Contrary to ex-

pectations, gynecological practice is very light, though venereal disease, especially syphilis, is very common. Diseases of the breast are common, as might be expected in a land where it is not uncommon to see a child nursed ten times in an hour, not to mention the fact that nursing is kept up until the child is four or five years old, and sometimes as late as six and eight—yes, and even ten years old! We do not have the horrible obstetrical cases encountered in some parts of China. Most of our patients are Christians, and the cases are normal. By coming to the hospital, they avoid tetanus, the disease that takes so many babes on the third day. The uninitiated think it extraordinary that never yet has a baby born in the hospital died of tetanus. Of course, they do not know that their practice of covering mother and child with nice, soft loam has any connection with the mysterious deaths on the third day, and if we tell them, they do not believe it. This is not so much a superstition on their part as a makeshift arising out of their poverty. They have no cloth to use as wrappings or to absorb discharges, so they use the best they have with aforesaid fatal result.

The two obstetrical cases that I have received lately from the hands of the midwife may be of interest to you. One was a case of placenta praevia at about the seventh month. When they brought the woman to the hospital she had been bleeding for two days, and the family, becoming frightened, had called in two midwives, who had clawed the poor patient all night long. The next morning, when they gave up in despair, the patient came under my observation. I knew from previous experience that it was not possible to do any conservative work in their wake; so I did nothing until the patient was etherized and ready for operation. When I looked into the vagina, I found the child's liver and intestines lying loose. There was a contraction ring, so that it was a very difficult delivery in spite of the small size of the child. At the close of the delivery, the mother was in a bad state of shock, and I prophesied a stormy convalescence, but was greatly surprised to find it absolutely uneventful. Her relatives removed her against advice on the sixth day. The other patient was brought to the hospital by a wealthy banker, who has long been a friend of ours. She had a shoulder presentation; arm had been prolapsed for ten hours before her arrival. There had evidently been no small mount of traction exerted, too. The vagina was simply torn into ribbons by the finger nails of midwives and so badly swollen that it was impossible to recognize the urethra. Version and extraction was done without too great difficulty and produced a dead child, of course. The mother made a fairly good convalescence, but it was a constant fight with the relatives to keep her in the hospital.

One of the largest branches of our service is the eye work. One is tempted to say that every one in China has something the matter with his eyes. They all have trachoma, and the men add cataract to theirs, while the women prefer entropion. Probably a fifth of all our patients have eye disease, and hardly a week goes by that we do not have an entropion operation.

Curious as it may seem, we have no few accident cases. One would think it impossible for an agricultural community without machinery to get as many injuries as these people have. This year our country has been harrowed by bandits, and, on that account, we have had many cases of gunshot wounds and also many severe burns.

(Dr.) Amy A. Metcalf.
Williams and Porter Hospitals, Tehchow, Shantung, China.

DISTRIBUTION OF EXPENSE—A QUESTION OF ACCOUNTING

What Is Included in "Professional Care of Patients"?—Where Training School Salaries Should Be Placed

The following correspondence will undoubtedly be found of interest by readers who have been following the series of articles on "Hospital Accounting" by Mr. Carter and Mr. Porter:

My Dear Mr. Carter:

May I say a word about your last article (October issue) on hospital accounting? Under section II, subsection 8, "professional care of patients," you include "superintendent of nurses, head nurses, nurses." Under section III, subsection 23, "department expenses," you include training school salaries and wages. There is room for some confusion here. What is intended by training school salaries and wages? The superintendent of nurses and her staff of supervising instructors are evidently intended to be included under section II. There would remain then only the salaries and wages of the housekeeping department of the nurses' home. If this is what is intended, would it not be best to say so?

Under "professional care of patients" you have included, as we in our Mount Sinai report have also included, the x-ray service and the pathological department. You have also included the dispensary in this group; in Mount Sinai we handle the dispensary separately as representing a department quite distinct from that of the hospital proper. With regard to the pathological laboratory and x-ray service, I think that both you and Mount Sinai are in error. It is true that some of the items charged under these headings represent "professional care of patients," as, for example, the salaries of the professional and technical staffs of these laboratories; but in well-developed hospitals the pathological laboratory includes among its employees persons whose work is more akin to that of the housekeeping department than that of the medical staff. It is not desirable, I think, to split up the expenses of the pathological laboratory, allocating the purely professional expenses to the division, "professional care of patients," and the incidental expenses to other divisions and headings. I think it is best to show wherever possible, under a single heading, the total cost of conducting the pathological department, split into two main items of "salaries and wages" and "supplies." But, inasmuch as part of the expense of the laboratory is non-professional, would it not be best to handle this item as a "department expense," and not as a special division of the "professional care of patients"? There is a sense in which the whole hospital is devoted to the care of patients, and the work of the ward maid is quite as professional as the work of the cleaner of the floors and windows of the pathological laboratory. The pathological laboratory, the x-ray service, and similar services seem to me to belong in a separate department group, somewhere between the generally recognized "professional care of patients" and the commonly accepted "department expenses."

As for the social service department, which you have also included under the "professional care of patients," this is a distinct department, a sort of adjunct to the medical service proper, and, like the dispensary, I think it should be handled as a separate department.

You may say that this is a splitting of hairs and, of course, this is true, but the whole purpose of cost accounting is the splitting of hairs intelligently and helpfully.

Yours sincerely,
S. S. Goldwater, Mount Sinai Hospital, New York.

My Dear Dr. Goldwater:

In reply to your letter of November 6, which was sent to me through The Modern Hospital, I should like to call your attention to the introduction to the series of accounting articles which are now appearing in this magazine by Mr. Porter and myself, in which the difficulty of devising a system of accounting which would meet the requirements of all hospitals was admitted. Local conditions in different hospitals, regardless of the size of the institution, will always vary.

There are a few very small hospitals that employ a pathologist, while a large hospital, like Mount Sinai, may have a pathological laboratory with a full staff; an organic chemistry laboratory and staff; and, perhaps, a

bacteriological laboratory and staff, separate from the pathological department. In this case items of expense would be charged directly to each of these highly developed departments in order that accurate costs of this kind of "professional care of patients" might be determined.

In smaller hospitals, however, to attempt to apportion the expense accurately and minutely would force them to carry as large a clerical force as the large hospitals, and consequently they might have more clerks than patients.

Briefly, the size of the institution must regulate the number of departments that may be operated economically and fineness of the costs for the more highly developed departments, such as pathological and x-ray.

Section III, Article 23: Training school salaries and wages should include the supervising instructors' of the embryo nurses in the training school, as well as the cost of janitor service, etc.

The superintendent of nurses would ordinarily spend more time in the routine work of the hospital than in the actual education of nurses; so her salary is chargeable under Section II, Article 8.

The actual costs of the nurses' home should all be grouped under a department by that name. As a part of the remuneration which the nurses receive is board and lodging, it is quite as important to know what it costs to house and feed nurses as it is to know what it costs to house and feed patients.

The question of departments is an easy one to solve, as there are but two classes—departments that deal with patients, which must come under the general classification "professional care of patients," and the miscellaneous departments whose costs must be distributed by some equitable method to the departments included under the first departments that do not care for patients directly.

As a matter of fact, the cost of the training school must be borne by the departments under the caption "professional care of patients," just as much as is the food that these patients eat, the drugs administered to them, etc.

The office is a department, the power and steam plant is a department, or possibly two, but the costs of operating these departments must be absorbed by departments that fall under "professional care of patients" and the social service department must bear a just share of the expenses of the institution maintaining it.

You have hit the nail squarely on the head in saying that accounting is a matter of "splitting hairs." And the more intelligently they are split, the better are comparative records which furnish the basis of instituting economies and checking leaks.

I hope this letter will explain the reasons for apportioning expenses according to the article you referred to.

Sincerely yours,

H. K. CARTER, New York.

THE DANGER OF FIRE IN THE HOSPITAL

The Trustee's Responsibility for the Safety of Patients—Means of Escape in Case of Fire—Spread of Smoke

Every hospital trustee has a moral and legal responsibility which can not be discharged solely by perfunctory attendance at board meetings. Unless the trustee has personal and intimate knowledge of the conduct of the hospital and the condition of its plant, his counsel at the board meeting is more apt to be detrimental to the hospital than helpful.

If any trustee feels that he has not done his full duty and is moved really to interest himself in the hospital, he might begin by going to the hospital and putting himself mentally in the situation of being in charge of getting the patients out of the building quickly because of an outbreak of fire. He must consider that most hospital patients cannot help themselves and that many of them, especially surgical cases, would have to be taken out on mattresses or stretchers or be grievously injured, perhaps killed.

From his own experience the trustee will know how rapidly fire spreads, so that the need for quick work will be plain, and this requires that the minimum number of nurses and orderlies available at any time be taken into consideration.

It cannot be assumed that a smoke-filled stairway or a steep iron fire escape ladder furnish satisfactory means of exit.

The possibilities for the spread of smoke must be taken into account, for smoke often kills more persons in a burning building than fire does.

The danger of fire should be looked into. The electric wiring may be old and its insulation decayed and useless. Cheap insulation does not remain effective very long. The kitchen, where fires are very apt to originate, may be so situated that a fire starting there would be communicated quickly to the rest of the building. The boiler room, especially if it contains a high-pressure boiler, may be placed where it is a source of danger. Cellar rooms may be cluttered up with inflammable material. Paint stores may be carelessly kept. There may be other hazards.

If the trustee's investigations do not convince him that the patients can all be removed safely in the event of a fire, he should immediately head a movement to make the building safe. It is a moral obligation.

Lack of funds should not cause remedial measures to be put off. It is better to face a money-raising problem than to appear before a grand jury.

BOOKS RECEIVED FOR REVIEW

The Composition of Certain Patent and Proprietary Medicines. More than 2,500 Remedies; over 3,100 Analyses. By John Phillips Street, Chemist in Charge of Analytical Laboratory, Connecticut Agricultural Experiment Station, New Haven, Conn. Cloth, pp. 274, $1.25. American Medical Association, 535 North Dearborn Street, Chicago.

From "Poilu" to "Yank." By William Yorke Stevenson, Section No. 1, American Ambulance, 1917. Illustrated. Board, pp. 205, $1.50. Houghton Mifflin Company, 14 Park St., Boston, Mass.

Text-Book of Home Nursing. By Eveleen Harrison. Second Edition. Cloth, pp. 187, $1.10. The Macmillan Company, New York, 1918.

Where Your Heart Is. By Beatrice Harraden. Cloth, pp. 367. Dodd, Mead and Company, 1918.

Dietetics for Nurses. By Fairfax T. Proudfit, Former Instructor in Dietetics in The Lucy Brinkley and Baptist Memorial Hospital, Memphis, Tenn. Cloth, pp. 444, $2.25. The Macmillan Company, New York, 1918.

The Doctor in War. By Woods Hutchinson, M.D. Illustrated. Cloth, pp. 481, $2.50. Houghton Mifflin Company, Boston, 1918.

Clinical Medicine for Nurses. By Paul H. Ringer, M.D., Member of Staff of the Asheville Mission Hospital, Asheville, N. C. Illustrated. Cloth, pp. 269, $2.00. F. A. Davis Company, Philadelphia, 1918.

The Newer Knowledge of Nutrition. By E. V. McCullum. Cloth, pp. 199, $1.50. The Macmillan Company, New York, 1918.

Everyday Foods in War-Time. By Mary Swartz Rose. Cloth, pp. 117, 80 cents. The Macmillan Company, New York, 1918.

Food and The War. By United States Food Administration with the cooperation of the Department of Agriculture and the Bureau of Education. Cloth, pp. 374, 80 cents. The Riverside Press, Cambridge, 1918.

Dr. W. W. Keen, of Philadelphia, says that in the Civil War shells from eggs used in the hospitals were saved and sold. In one hospital of 3,000 beds the revenue was $3,000.00 a year. The shells are pure calcium carbonate and were used in the manufacture of face powder. Might not this hint be useful in large civil hospitals?—E. R. Scovil in the Canadian Nurse.

QUERIES AND ANSWERS

Interfering Boards and Committees

To the Editor of THE MODERN HOSPITAL:

We are troubled with men's and women's visiting committees making rounds throughout the institution at least once a week, who report their findings to the board of directors at their monthly meetings. They are at times very meddlesome and try to interfere with the management of the institution. I have never paid much attention to them as yet.

But now the president of our organization has a plan by which he intends to get the women still more interested in the hospital, by forming different committees who will "take hold" of the entire inner working of the institution (laundry, kitchen, linen rooms, etc.). I called his attention to the seriousness of his proposed undertaking, saying that I would not allow them to interfere with my management of the hospital.

I would appreciate it very much if you would let me have your candid opinion in this very important matter.

SUPERINTENDENT NEW YORK HOSPITAL.

The method of management mentioned in your letter has been so productive of friction that it has been absolutely cast aside by all hospitals which have progressed and have come to meet the present standards of efficiency. Hospital boards which have a proper conception of standard present-day management understand that their function is not to interfere in the actual daily management of the hospital, but to advise and support the superintendent of the institution. No hospital can secure results unless an efficient superintendent is employed and this superintendent left to the management of the hospital without interference.

This important subject is discussed more fully in an editorial in this issue.

* * * *

Charging for Patients' Days in Institutions

To the Editor of THE MODERN HOSPITAL:

A holds that, if a sanatorium or hospital patient be allowed a few days, or even a week, away from the institution, as his bed is kept for him and the overhead expense continues, the absent days should be counted in the hospital days the same as a hotel or boarding house would charge for an absent guest; also, that if a bed is held for a patient a few days previous to admission because the patient arrived a few days late, these absent days should also be counted in the hospital days. B admits that charging patients board for absent days is legitimate as a means of discipline or economy, but cites known instances in which patients absent on visit actually were receiving care from other institutions or private nurses, and holds that hospital days should be a strict record of days' care actually conferred on patients.

Please state which method of counting hospital days should be followed and why.

SUPERINTENDENT EASTERN SANATORIUM.

The points raised cover two separate and distinct questions—first, as to how the number of patients' days care is computed by the institution in charging for these days' care; second, as to charging for rooms that are held.

In answer to the first question, it is submitted that only actual days that a patient is cared for in the institution should be counted. In the case of A, the procedure would be that, when the patient leaves the institution, he would be discharged and upon his return he would be readmitted.

As regards charging for rooms that are held, this depends absolutely upon whether or not the institution loses revenue thereby. To illustrate, if a reservation is made for the first of the month and the patient does not come in until the third and, by reason of holding this room, another patient is kept out of the bed, resulting in loss of revenue, most certainly the patient for whom the reservation is held should pay for the service. If, on the other hand, this room was not needed, it should not be charged.

* * * *

Duties and Responsibilities of Superintendent of Nurses and Business Manager

To the Editor of THE MODERN HOSPITAL:

I should appreciate it very much if you could give me a pretty general outline and definition of the duties of a superintendent of nurses in a hospital which is, in fact, a training school, and also of the duties of the business manager. The point which has arisen here is that the superintendent of nurses should be the chief executive officer in the institution and that the business manager should be subordinate to her. My understanding is that, in most institutions, the duty of the superintendent is primarily to have charge and supervision of the training school, acting in the capacity of head of the faculty, to have supervision of the nurses in the hospital through the medium of the assistant superintendent and her subordinates, and to have direct charge of the orders of the attending physicians. I have been under the impression that the duties of the business manager consist in general supervision and maintenance of the hospital buildings and equipment, purchasing and dispensing of all supplies, general supervision of the household, keeping of books, collecting of accounts, and transaction of all other business matters.

A MEMBER OF A BOARD.

One of the principal reasons why hospitals in general have been considered lax in their business methods is their poor management, which is usually a result of the fact that many of them do not have a chief executive officer who is "over all" departments.

There must be one head in order to get proper results. This chief executive officer should be designated as "superintendent." This name should be standardized. There are good reasons why "business manager" and other names should not be used. Whether this position is occupied by a doctor, nurse, or layman makes no difference. The superintendent of nurses, medical staff, and heads of all departments connected with the institution must be under the superintendent to get proper results. The board of directors should act as councilor to the superintendent. Their work, which is in direct contact with the management, should be done through him rather than over his head.

This is the only way for a hospital to be managed in order to give proper service to the patients, to safeguard the funds of the institution, and to secure the confidence of the community.

Be Sure All New Machinery Is Understood

This doubtless is the day of machinery, and hospitals are behind the times to say the least if they do not take advantage of all the labor-saving machines that they can use with benefit. However, once you have determined that a particular machine will save the hospital money, be very sure the employee is fully instructed and heartily in sympathy with its use, or instead of being an asset, it will lie idle and not be used at all, or it will be found upon the junk heap in short order.

HINTS TO HOSPITAL SUPERINTENDENTS

Building New Hospitals

It cannot be too firmly borne in mind that the Great War is epochal and that we all shall have to clear our minds of many fixed ideas based upon experiences of the pre-war period. Any consideration of hospital building projects must be based upon the new conditions and not by comparison with buildings erected before the war.

The expense of building hospitals is bound to be greater than in the past. Owing to the suppression by the government of all private building during the war, a great amount of construction will be necessary, at practically any cost, as soon as the restrictions on building are removed, and this necessary construction will keep the cost of building high for many years. Investigations show that building to the value of over $200,000,000 has been held up during the war in the cities of New York and Chicago alone. The total in the whole country reaches an enormous sum.

The reconstruction work abroad will draw heavily upon our production of building materials and will further tend to keep prices high. It is thought by many well-informed authorities that these influences will remain for as much as ten years, and that a recession to pre-war prices may never be expected.

No effort should be made to offset the higher costs by using cheap materials and finish, for a hospital, more than any other building, should be built well if for no other reason than to keep down the burden of maintenance charges, which will become larger and larger each year in a poorly constructed building. If a compromise is necessary, let it be in the size of the building rather than in its quality.

* * * *

Closets in Private Rooms and Small Wards

In the private room, or in the small ward, a closet can nicely be built in the corner, cutting off diagonally a small triangular space. Few patients bring many clothes to the hospital, but all appreciate some way of keeping them out of sight. A door 18 inches wide by six feet high is ample, and, if the floor of the closet be raised up to the level of the baseboard, it will be easier for the help to clean it. Incidentally, this cleaning will be done oftener and more efficiently. Such closets have been plastered with Keene's Cement, including the floor, thus doing away with woodwork.

* * * *

Caring for the Clothes of Ward Patients

The problem of caring for the personal clothing of ward patients can be simply solved, while maintaining a high standard of hygiene, by using washable cloth "lockers" of sufficient size to make it possible to hang, unfolded, all clothing of the patient. These lockers may be held in place by wire grilles at top and bottom. While being filled they may be supported on portable racks in the admitting room, then carried to the general clothing storage room.

Do Not Make "Sanitation" Odious

In planning, constructing, and furnishing the hospital, do not emphasize too strongly all of the well-known "sanitary" features, such as white woodwork, flush-panel doors, round corners, etc. Use these and all similar precautions where they count, as in the operating and other workrooms; but don't overdo it, and thereby eliminate all possible attractiveness from the patients' rooms and similar portions of the building. Someone has said that a hospital is a factory for making well people; that is not true. A hospital is, or should be, a home on a large scale, where the institutional atmosphere has been eliminated as far as possible. Surround your patients with things that are comfortable, attractive, and beautiful, to the end that their thoughts may be directed away from their troubles. Risk the remote chance of a few lurking germs in pictures and books, and other things that are not smooth-faced, round-cornered, and white, in order to gain the immense advantage of the greatly improved "morale" which brings with it power of resistance to the progress of disease.

* * * *

Washing the Hands to Avoid Cross Infection

If we believe that most communicable diseases are acquired by contact, and not through the air, and that contact is largely through the hands, then why not acquire the habit of washing the hands after contact with each patient or anything the patient has touched? To make this possible, simple wash basins should be placed at frequent intervals in the wards or in the corridor, near the wards. If the valves were controlled by the elbow, this would make the process of washing the hands almost automatic, and much cross infection might be avoided.

* * * *

The Choice of a Site

One of the most difficult problems in hospital planning is caused by lack of foresight and good judgment on the part of the Hospital Building Committee, in making the selection of a site without some preliminary architectural study as to its fitness. This applies more urgently and emphatically when the proposed site is not reasonably level.

Of the various classes and types of building, a hospital certainly requires as much care in arranging the internal communications so that there is no lost motion and no loss of energy in handling food, supplies and the patients themselves. All corresponding floors should be on the same levels and free from inclined connections of any sort. An incline under the best of circumstances is an ever present source of expense and annoyance. With a level or reasonably level site no great difficulties will be encountered in this regard, but with a hillside site the problem presents difficulties which under certain circumstances may not be overcome except at great expense in excavating and grading.

While it may seem severe judgment it is far better to condemn and abandon a site even if already purchased than to build on one that will always be a source of criticism and expense.

* * * *

A Lost and Found Station in the Hospital

In an institution of any size whatever there are a lot of little items that are misplaced, such as a washer from a gas machine, a bolt from an operating table, etc. At the time these things are found, it is not known where they belong, and it is not until these articles are again needed that their loss is discovered. A Lost and Found Station, where all articles could be turned in, ought to prove satisfactory.

DEPARTMENT OF DIETETICS

Conducted by LULU GRAVES.

Please address items of news and inquiries regarding Department of Dietetics to the editor of this department, Home Economics Building, Cornell University, Ithaca, N. Y.

THE DIETITIAN IN SOCIAL WORK

Undernourishment of Children a Big Problem Among Foreign Population—Solution Must Come Through Combined Efforts of Physician, Social Worker, Children's Clinic and Dietitian

By LUCY H. GILLETT, Director Dietetic Bureau, Boston

Doubtless there are few students of dietetics who under the inspiration of the classroom have not had visions of the value of the subject to the great field of social work. Surely there is no place where the realization of such dreams could be of more real value, for there is no place where the application of dietetics is more needed than in social work dealing with the undernourished child.

In almost every instance where children have been examined physically, large numbers have been diagnosed as undernourished. This is obviously not the fault of the child, nor is it entirely the fault of the mother, as her chief concern is for the health of her children. Frequently she is a stranger in a strange land, unable to get all the foods to which she has been accustomed in her own country. Because she does not know how to substitute, her diet is poorly balanced, and yet she feels that her safety lies in her reluctance to accept every new idea which is presented by comparative strangers. The fact that she has kept the majority of the children alive is to her sufficient argument that there is nothing radically wrong with her method.

Nevertheless it does not seem right to let the children suffer for the rest of their lives when preventive knowledge is available, nor is it for the best interest of the community to run the risk of these future citizens becoming a burden to society. It is somebody's problem. Who is better fitted to help with it than the student of dietetics cooperating with someone in close touch with the family? It must be dealt with through someone in whom the family has confidence.

Many cases naturally go to the physician, whose word carries more weight than probably that of any other person, but, while he may tell the mother in a general way how to feed a particular member of her family, he has neither the time nor the background to sit down and analyze her individual situation as influenced by economic conditions or the possibilities of substituting one food for another to make a more agreeable adjustment for the family. Perhaps the woman has only $10 to spend for food for a week for the whole family of six, and the doctor, realizing the importance of specific directions but not knowing conditions, may order some foods which are expensive at that season of the year when another food of equal food value but considerably more economical would do as well, or when some food to which that particular family has been accustomed would be quite as satisfactory from the doctor's standpoint and infinitely more so from theirs. But the anxious, innocent woman either carries out the directions as given at a sacrifice of food needed by the rest of the children, or goes into debt to meet the requirement. Sometimes she gives up in despair, either because she does not know how to prepare the food suggested or because she cannot afford to follow suggestions. Isn't it conceivable that a dietitian might be of great value in just such cases as this, where she might help the mother plan her meal to conform to the suggestion of the physician by telling her what might be substituted or by showing her how to prepare the food itself? At the Boston Dispensary there is a food clinic with a specialist in charge, who helps the women in just this way. The doctor gives general directions, but the dietitian shows the woman how to adapt them to her needs.

The social worker is a familiar visitor, and she, too, has the confidence of the family, but ordinarily she has not the background for advising the woman concerning the food; and, if it is a matter of showing in addition to advising, neither has she the time, although she would willingly cooperate and receive help and suggestions from someone trained in dietetics.

It is too big a problem for any one group of people to solve alone. It seems to me that it can be accomplished only through the combined effort of the doctor, the social worker, and the dietitian. The doctors are already at it, the social workers are interested and ready to receive help in doing their part, and some students of dietetics and nutrition are in the field. But there is need of many more.

That social agencies are realizing the need of action is shown by two studies which have recently been made—one by the New York Association for Improving the Condition of the Poor, in cooperation with Professor Sherman of Columbia University, and the other by the League for Preventive Work in Boston. These investigations were for the purpose of determining whether the families, when left to their own devices, get such nourishment as is needed by the growing child, and whether the mother buys to the best advantage where the strictest economy is necessary. In other words, is poverty or lack of training the largest factor in malnutrition?

The results of both these studies were in close agreement and to the effect that where there has been no instruction in food values the diet of a large percentage of the families is not such as to provide adequate growing material for the children. While we cannot deny or overlook the effect of poverty, knowledge and application of relative food values might do much toward giving many children a better foundation for health and resistance.

The deficiencies in diet occurred frequently where the amount of money spent for food was adequate to supply sufficient nourishment had it been spent wisely; or, often times, where all food factors were adequate, the amount of food consumed was considerably more than would have been necessary had there been a proper balance between the different types of food. This is especially significant in the light of signs which say "Don't Waste Food" and "Food Will Win the War." Many are sure they are not wasting food if they leave no bread or meat on the plate, while others are sure that they eat no more than enough to satisfy the appetite. It might be good conservation to preach a well-balanced diet.

The greatest danger of deficiency seemed to appear in the amount of energy supplied by the food. In the New York study of 92 families, 33 were plainly deficient in energy (supply less than 2,500 calories), and 21 might be counted as doubtful (or between 2,500 and 3,000 calories). This is making only a conservative estimate of the amount

of energy required during growth and activity of children. If we take the estimated maximum allowance upon which to base children's needs (3,500 calories), then 75 per cent were perhaps not getting sufficient energy for the best development during growth. These figures are based on the per man per day allowance.

According to these studies, there seemed to be very little cause for concern over the protein deficiency. Money was apparently spent for such foods as supplied this factor at a sacrifice to other things, such as energy, calcium, phosphorus and iron. Calcium seemed to be deficient more frequently than any other factor except energy. Since this element plays such an important part, not only in bone and teeth formation but in organic functions as well, the frequent deficiency of this element should be looked upon as a serious defect in the average diet. Iron, a well-recognized necessity, was so frequently deficient that we feel that here also is a serious problem.

These deficiencies in energy, calcium, phosphorus, and iron should help to explain the large amount of malnutrition reported among school children.

Since each of these deficiencies seemed to be quite closely related to certain types of food in the diet, they may give us a more accurate basis for guiding the public mind in its selection and consequent conservation of food.

The energy was found to be closely related to two things. First, the amount of energy decreased with the amount of money spent for meat; and second, it increased—and, in fact, seemed to be correlated—with the amount of grain products consumed.

Where the families were spending from 40 to 50 per cent of their total food expenditure for meat, the energy was markedly deficient. It is true that some of these families were not spending as much money for food as those getting more energy, but this is all the more reason why they should have been spending it in such a way as to get the best returns. The families spending 27 per cent of the food money for grain products and less for meat received the same amount of energy for two-thirds the cost. The more grain products the cheaper the diet, while the more meat used the greater the cost for sufficient energy. Where the strictest economy was necessary, the families were not getting all the energy needed until one-fourth to one-third of the total food expenditure was for grain products.

There is another important consideration in the question of energy. Although the quantities of fat and sugar are below normal market conditions just now, it is not fair to leave them out of such a discussion because both are recognized as valuable fuels, but since neither butter nor sugar contains much if any of the mineral salts, there is a possibility that the iron content of the diet may suffer by too liberal use of these foods, especially in cases of tuberculosis. It was found that in the dietaries containing the least iron, the amount of butter and sugar was comparatively high, and in those containing the largest amounts of iron, the amount of butter and sugar was correspondingly low. It seems, then, as though there might be a serious danger for growing children in deriving too much of their energy from butter and sugar, and, when these foods are combined with white bread, which is also low in iron, there is even greater danger of iron deficiency.

Iron, on the other hand, increased with the amount of vegetables and fruit more regularly than with the amount of meat used. This fact suggests that, in some families, some of the money spent for butter and sugar, sugar especially, might be better spent for vegetables and fruits when these foods are obtained in ordinary quantities.

Calcium seems to be very closely related to the amount of milk used. The amount of calcium in the diet and the amount of money spent for milk runs so nearly parallel that the results, when charted, seem more like an ideal suggestion than an actual fact. The standard allowance (0.68 gm.) of calcium in the diet was not reached until there was a corresponding expenditure for milk of 3 cents per man per day. Since milk was 9 cents a quart when these studies were made, it would seem as though at least one-third of a quart per man per day were necessary to supply the safety allowance of calcium for adults. Professor Mendel of Yale says that "animals may be in excellent nutritive condition in so far as the protein factor is concerned for long periods of time while they are still losing calcium from their bones. It then happens that suddenly a collapse comes for which there is frequently no obvious explanation." In the studies upon which these figures were based, over 57 per cent of the total calcium in the diet was obtained from the milk and cheese. The grain products and the vegetables contributed 12 and 15 per cent respectively, leaving a very small amount to be derived from the several remaining types of food. Since the calcium is so essential and since milk is such a large contributor to the supply of this element, the use of milk cannot be too strongly urged even at its present price.

From the constant observations made while studying these dietaries, it was felt that if the energy, iron, and calcium were supplied chiefly through the cereal products, vegetables and milk, there would be little danger of deficiencies along other lines. To meet these requirements, it is suggested that a large amount of grain products be used (one-fourth of the total food expenditure where the strictest economy is necessary) with a liberal use of the whole grains, such as graham flour, brown rice, and oatmeal; that the expenditure for milk be at least equal to or greater than the amount spent for meat; that the expenditure for vegetables and fruit be equal to or greater than the amount spent for meat. With this division of the expenditure for food, we feel that the money will be spent in such a way as to give the best return in nutritive value (Sherman).

Some of the dietaries with low calcium and energy were reconstructed to study the influence of less money spent for meat with an increase in the amount spent for milk, vegetables, and fruit or the total amount of money spent for these three types of food was equally distributed and the food values recalculated. It was found that a dollar spent according to the new arrangement would buy as much energy as $1.28 according to the old, with a better balanced diet.

This analysis of family dietaries helps to answer the query as to whether people, when left to their own devices, select such food as will best meet the needs of the body and whether they get the most for the amount of money they have to spend.

The Association for Improving the Condition of the Poor in New York has been applying the results of the study made by them to the family problems—especially to families of limited means—with excellent results. While this is only an extension of the work which has been carried on there for the last ten years, yet an argument backed up by actual facts has many more possibilities. In almost every instance where there were undernourished or tubercular children, it was found that the diet contained an overabundance of meat and white flour products and too little milk and vegetables. Meat and white bread are to them the "staff of life," and, having satisfied their appetites in this direction so far as a poorly balanced diet is able to satisfy it, they have no money to buy milk and vegetables, which they class as luxuries.

In almost every instance where the diet was changed to conform to the above suggestions, the children improved in health and in weight, and it was frequently found that the mother was spending considerably less for food. Less meat, less wheat, less sugar, more milk, more vegetables, and more whole grain cereals work toward conservation of food, conservation of health, and conservation of money with more happiness.

One case in particular is interesting. It is the pathetic story of a boy who was anxious to help his mother support the family but was not strong enough to work. He had been sent away to a malnutrition camp, where he gained in weight, but a few months on the old diet put him back into his old condition again. A social worker became interested, and, with the advice of a dietitian, she helped the mother plan his diet. Her means of attack was through an account of what was spent for each type of food. With this as a basis, she found it much easier to talk to the woman in terms of more or less money spent for meat and vegetables. Until she had it down in black and white, however, her "little meat a day" and our "little meat a day" were not statistical figures fit for comparison.

The change in diet was gradual, for food habits are of long standing, and new ones, like an education, cannot be gained in a day. But the final result was that at the end of three months the boy gleefully told his adviser that he was feeling so well and strong he knew he could work that summer and would not have to go to camp, and the mother added, "and I have spent a dollar less a week for food, too." This is only typical of many such examples. The case had been diagnosed as malnutrition. This meant to the mother too little money spent for food, but from her scant resources she did not know how to spend more.

The influence of the dietitian is too limited where her work is confined to the individual family alone. Her function in the social field should be two-fold. She can reach the largest number of families through consultation with the workers in regard to the families whom they visit regularly, advising them with regard to their various problems and working out and simplifying for them applications of the various principles of dietetics which should be practiced in every home—especially where there are growing children. She may also help by accompanying the social worker on visits to homes where special assistance is necessary, but her intensive efforts should be reserved for families in which there is an undernourished condition or other diet disease. If, in cases in which the dietitian herself goes into the home, she keeps the regular visitor informed with regard to the suggestions which should be given, both may emphasize the same thing with more than double the influence which either would have alone.

The most effective work can often be done with the children because the mother needs to know child-discipline quite as much as she needs to know child-feeding. That bland and all-sufficient argument, "See, Tommy no like milk, all Tommy likes is coffee," is to her an insurmountable difficulty.

One of the easiest ways in which to interest children is to give them a weight card to study, then have them weighed and let them compare their weight with the standard. The Child Health Organization has just issued a card for such purposes with the normal weight for the age and height of both boys and girls, and one of these will often impress a boy or girl where hours of talking fail. The point of view of the child is that if he is not sick in bed why bother about an indefinite future? But to see something actually happening is a different matter. Many a child has given up coffee and eaten oatmeal for breakfast every morning just for the sake of seeing the line which records his weight on a weight chart go up to normal. A nutrition class is still better as a means of getting the children to eat what they should, as the spirit of competition spurs them on to see whose weight goes up to normal first and the emphasis is not too much on either food or health.

Competition and class work are used as an incentive through which to arouse the interest in the food problem. Discussions once a week are used as the basis for emphasizing important factors in proper eating and, if the mothers are also persuaded to be present, so much the better. The results are good from the class alone, but they are much more effective if the class work is followed up with visits to the homes by someone who can show the mother how to meet her individual problem. There must be some teaching in preparation of food—especially with the foreign population, who are not accustomed to American foods. By this I do not mean that we should try to change the food habits of any other nationality to conform with our own, simply for the sake of Americanizing them. I believe we should do this only in so far as their diet needs to be supplemented, for the sake of health, by some of our foods with which they are unfamiliar.

It is immaterial from the nutritive standpoint whether they cook beans, cabbage, and potatoes together or separately so long as they get the food value in a digestible form.

Several clinics based on this principle have already been started. Dr. Emerson of Massachusetts General Hospital in Boston has been the pioneer, followed by Dr. C. H. Smith at Bellevue and Dr. Stark at Post Graduate Hospital in New York. Last spring Dr. Emerson went to New York to try out a clinic in connection with one of the public schools. Just recently the Association for Improving the Condition of the Poor has established several nutrition clinics in connection with its work, two in connection with milk stations and one in connection with one of the public schools. Before admittance each child is examined by a physician for physical defects, as, needless to say, food is not always responsible for underweight in children and much time may be wasted in trying to build up the weight and strength with proper food when some factor other than malnutrition is at fault.

There are various ways in which this problem of helping the family may be accomplished. Each social agency has its own problems and requires methods adapted to its own particular needs. Some agencies deal with the family problem as a whole, some are interested primarily in health (such as nursing associations, where nurses go into homes to advise or assist), some hospitals maintain a social service department from which workers go out to investigate and help conditions in the homes of the patients, and some agencies deal exclusively with the care of children. But each and every one of them comes in contact with the family problem.

In Boston there is a society called the League for Preventive work. It is made up of eighteen social agencies, each coming in contact with families and children through one of these various constituents. Its function is first to study the causes of misery and then to promote a constructive program. The study of family dietaries made by this league in the summer of 1917 aroused the various agencies to such a realization of the seriousness of lack of proper feeding for the child that a dietetic bureau has been established as a part of its constructive work. The problem of undernourishment is recognized as a social evil.

An attempt to combat it means more work now, but any organization which will make the attack is looking toward a cleaner, healthier community in the future. The bureau does not limit its opportunities to the agencies which are directly connected with it, but, recognizing the problem as a social one, extends its invitation for consultation to the city and state in general.

We are to have a standardization record card which will admit of studies of causes and conditions of cases reported. We hope to standardize suggestions given to families, so that they will not be confused and discouraged by conflicting and contradictory bits of advice. It is felt that if each one who comes in contact with families urges the proper feeding of children with consistent suggestions, the combined efforts of all will eventually accomplish what isolated attempts could never do. Much energy is wasted in trying to justify one opinion against another. Is it any wonder that strangers who come to our cities are confused with such a diversity of opinion?

We have had conferences with some of the leading child specialists of Boston, and from their combined suggestions we are formulating diets for children of various ages, so that the doctor, the social worker, and the dietitian may give the same advice. The aim is to make the directions simple, practical, and economical, and such as can be carried out in any home. Each sheet of suggestions is to be the result of conferences with various people interested in a particular subject, with the final criticism from the social worker herself. She is the one who understands the psychology of the family best, and dietitians should naturally turn to her for approval as to form and simplicity.

Personally, I believe that the solution of the problem of the undernourished child lies with the doctor, the social worker, and numerous food or nutrition classes supervised by dietitians, where children and mothers may be instructed with regard to specific foods and their methods of preparation, together with follow-up work in some of the homes. In the words of Kipling:

"It ain't the individuals
Nor the army as a whole,
But the everlastin' team-work
Ov every bloomin' soul."

If a dietitian has any time which she can devote to social betterment, that time, it seems to me, could be spent to no better advantage than in helping some social agency already in the field. We must serve as interpreters in dietetics, because there is a long distance between the information given in textbooks and in the classroom and the facts which must be transmitted to the average woman in the home, especially where economy is necessary and where the health of the children is in the balance.

The social worker appreciates most heartily suggestions which are worked out in such a way as to be of practical use to the family. Although she has not time to absorb the whole subject of dietetics, she respects material which she knows has scientific background and which can be defended on a scientific basis.

We need the social worker, and she needs us. We both depend on the physician, and we can help the physician in this phase of social work. These coworkers have an interresponsibility which cannot be overlooked. All the best-laid plans of the three types of workers put together won't solve the problem without hard, earnest work and a determination not to be discouraged by any doubting Thomas. The problem is difficult but not impossible; and the fact that it is hard is not sufficient reason why we should settle back and let conditions grow worse. It must be faced. Now is the time to show the true value of dietetics where it is most needed. Is there not some organization near you that would welcome your suggestions? If any one longs to do a worth-while piece of work, she could find no better field than that with undernourished children.

Opportunities for the work are growing. With the movement of child welfare, children's clinics are being opened up, social agencies are becoming more active, settlements are wondering how they may assist, and each and every one of them is asking to whom they may turn for help.

If any one wants to plan student work in preparation for this field, let me suggest that, in addition to a thorough training in dietetics and its allied subjects, an acquaintance with social problems, sociology, economics, statistics, sanitation, hygiene, and social disease is quite helpful. Without a knowledge of one or all of these subjects, it is almost impossible to deal with some of the problems which are met. If one is going to do any extended work along this line, some research experience is also most valuable, as there is always an opportunity to study—and frequently a necessity for studying—the relation of cause and effect. Experience in research helps to safeguard one from making premature decisions.

Before trying to assist someone else to help a family, however, it is quite essential to have had first-hand experience in this work. To get such experience, select a family from each of several different nationalities which have undernourished children and persuade them to change their food habits only enough to conform to the laws of health. Not until a person is armed with this success should he consider himself ready to advise others how to do it; and such a knowledge can only be gained by experience. Let me urge above all else, however, a cultivation of open-mindedness, a willingness to cooperate, and a desire to learn from those who have had experience in connection with family problems.

Worth-while and permanent results are reached only gradually and, in work with families, one has to remember not only that "Rome was not built in a day" but also that Rome would never have been built had there not been a beginning.

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RELATION OF FIELD DIETETICS TO SOCIAL SERVICE

Best Results Accomplished When Close Connection Is Maintained—Work of Field Dietitian Outlined

By BLANCHE M. JOSEPH, Field Dietitian, Emanuel Mandel Memorial Dispensary, Out-Patient Department of Michael Reese Hospital, Chicago

Field dietetics in connection with social service work is today an essential item, and investigation has proved it necessary in more ways than one.

A social service worker has no small task when visiting the homes of those who make it a habit to patronize dispensaries, for this class of people almost demand something for nothing. As a rule, they are ignorant foreigners, and their mode of living makes it hard for the social service worker; but, when she has adjusted herself to their habits, etc., she can make out intelligently both their budget and their diet list.

In field dietetics there are two distinct departments, the clinic work at the dispensary, where the attending physician diagnoses the case, and the follow-up work which is done by the dietitian if the patient is able to come to the dispensary for practical work in the preparation of

food. Too much stress can not be put on the preparation of food, for, among the families in poor districts, particularly foreigners, the greatest evil is lack of knowledge in cooking.

The follow-up work done by the dietitian consists in seeing to it that the instructions regarding diet, cooking, etc., are carried out. If the instructions are being followed and results are being obtained, a volunteer social service worker, who has also been instructed in dietetics, follows the case up closely, going once a month to the home. In cases of necessity, more frequent visits are made, depending entirely upon the patient.

The old-time theory of keeping the patient free from the knowledge of his particular case has now been found impracticable. Allow the patient to know the cause and effect of food values, how to build menus for special diets, etc., and he will reap the benefit of your scientific knowledge, which is necessary if he is to live up to the standard and prolong his life.

In the field work, when building menus for the patient, the income must always be kept in mind by substituting the cheaper foodstuffs for those which were given in the ward hospital, where cost was not taken into consideration, for the vitality of the patient depends greatly upon his food and the method of cooking it.

Many problems must be worked out for these unfortunates—how to provide food for the winter, etc. This is done by taking them, when possible, directly to the large city markets, buying the vegetables which are seasonable and reasonable, and then having the patients can the vegetables and fruits. Two purposes are accomplished by doing this in the diet laboratory; first, it gives the patient the knowledge of buying in the open market at the very lowest cost; and secondly, there is a saving, for the canned goods can be used for the following winter's consumption in class work.

At times one feels that it is not only the sick who should be instructed in field dietetics, but also the well, for preventive work is the constructive work which brings the best results.

Little mothers' classes were formed during the past summer by taking the young girls of fourteen to sixteen years old from these homes and teaching them the art of plain cooking, in order to help their mothers. When this class was formed, fourteen members registered, and at no time was the attendance less than eleven. Unfortunately, owing to lack of time, this class had to be discontinued, but it is hoped that another one may be formed during the coming winter.

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A SYSTEM OF DIETARY FOLLOW-UP WORK

Out-Patients in Minneapolis City Hospitals Kept in Direct Touch with Institutions by System of Diet Supervision—Food Problems in Homes of Patients Solved

By BETH B. TITUS, Head Dietitian, Minneapolis City Hospital.

Patients of the Minneapolis city hospitals whose cases are of a nature which requires trained supervision of diets for a period after their discharge are no longer required to rely upon their own initiative or information for proper feeding. A system of dietary follow-up work, established during the winter of 1918, now keeps such individuals in direct touch with the institution until special attention is no longer necessary.

This has indeed been an undertaking of proportions, for the city of Minneapolis maintains four hospitals: City Hospital, for general medical and surgical cases; Hopewell, for tuberculous patients; Lymanhurst, the baby hospital; and a hospital for contagious diseases. These have a total of 800 beds, with an average of 450 patients discharged each month, and a large percentage of these remain out-patients for varying periods, depending, of course, upon the nature of their cases.

At the time they are sent back to their homes, all out-patients are given detailed instructions for their own care. That a check may be kept on their procedure, they are required to report periodically at the dispensary, where they are advised and treated, and where their progress is closely watched.

At the dispensary, the dietary department of the hospital is given the patient's history, a record of the physician's instructions, and any other information which may be needed. A dietitian, assigned for this particular work, then assumes personal charge of the feeding. She goes into the home, investigates, advises, demonstrates the preparation of food, and makes a detailed report on the conditions found. A part of this work is what has come to be vaguely referred to as "social service." In instances where the dietitian is assigned to a case, she is under the supervision of the hospital staff.

Now, in war time, with the cost of food continually rising, the dietitian is of particular value in homes where illness has made inroads on all too slender incomes. At times the problem of getting food is, in itself, a perplexing one; but the problem of getting proper food is baffling to a large class of people. In this particular point, trained assistance in arranging household economies and in rendering an idea of food values is a great asset. When conditions are found to be such that the burden of keeping alive is too great to be carried by the individual or family without help, the dietitian in charge refers the case to the social service department, and, through them, aid is obtained from the board of charities.

The great bulk of the work is with tuberculous patients, diabetics, the several contagious diseases, and cases of ulcers of the stomach. The remainder is with babies discharged from Lymanhurst. The work with babies is growing, and its importance cannot be overestimated.

This work is a splendid training for the pupil dietitians, of whom there are at present five in the hospital. Their course of study covers four months, and, during the last month of study, each pupil is given the out-patient work. This enables her to follow many cases through a long and varied program of treatment, as she is brought into direct touch with some of the patients whose food she handled in the diet kitchens of the various hospitals. At the same time, she is charged with the supervision of the milk room at Lymanhurst, and, as much of her outside work is with children, she is in particularly close touch with the progress of those who leave during her administration. Three half days of each week are set aside for the out-patients, and during each period she averages over a dozen calls.

This work, while new to Minneapolis, is not an innovation in this country. Intelligent care of the diet of out-patients is doing much wherever it is given a trial, presaging the time when such hospital service will be in general practice throughout the United States.

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NEWS NOTES OF DIETITIANS

Miss Minnie Phillips, University of Illinois, 1917, who has spent the last few months as a student dietitian at the New Haven Hospital, has accepted a position as instructor of applied nutrition at the University of Iowa.

Miss Grace Van Aken has resigned her position at the University of Michigan Homeopathic Hospital and is attending Teachers College, Columbia University.

Mrs. Beth Titus has left the Minneapolis city hospitals to take charge of the dietary department at St. Barnabas Hospital in Minneapolis.

Miss Marion Peterson, who resigned her position at St. Luke's Hospital, South Bethlehem, Pa., early in the summer, is at present supervising the dietary department of the Ann Arbor Private Hospital.

Miss Gladys Bradbury, who for some two years was in charge of the diet kitchen at the University of Michigan, is now in charge of the dietary department of the Children's Hospital in Boston.

Miss Marguerite Bennett, who has been at Camp Merritt during the summer, was appointed head dietitian in charge of the unit of twenty-four dietitians which sailed for overseas duty November 19.

Miss Margaret Sawyer is doing special work on diets for aviators in the Post Hospital at Houston, Texas. Miss Sawyer's work in metabolism at the University of Iowa was such that we anticipate some valuable information will be given us in this new line of dietetics.

Miss McClurg has given up her work as assistant dietitian at Lakeside Hospital, Cleveland, on account of her mother's illness.

The marriage of Miss Margaret Chalifoux and Dr. John Allan Wyeth occurred early in November. Miss Chalifoux was formerly dietitian at Polyclinic Hospital, New York City, and Dr. Wyeth is president of that institution.

Heliotherapy and Thalassotherapy
Altitude or Seacoast?

In a recent *Revista de Medicina y Cirugia de la Habana*, is an interesting article on this subject by F. José Velez.

The author has visited the French sanatoriums on the Mediterranean coast: he has observed the fine results obtained at the institutions of Leysin, Davos, and St. Moritz, Switzerland; he has seen the work of the Italian seacoast sanatoriums, and he has come to the conclusion that high altitude is not indispensable for the cure of surgical and pulmonary tuberculosis. The curative property of the sunlight is due to the violet and ultraviolet rays, and these will have full effect provided the air is pure, which is the case on the seacoast of Cuba. The latter has some advantages which the mountains lack, a more equal temperature throughout the year and sunlight during the greater number of days. But this energetic therapeutic agent requires an intimate knowledge of its action. Its application demands men of experience, and it should, therefore, be carried out only in institutions expressly established for this purpose.

An Indian Creche in Bangalore

This institution was established by the municipality of Bangalore in 1913. A private building in the heart of the city was rented for the purpose. The number of admissions is limited to twenty-five infants. The nurse in charge resides at the building. The youngest babies are from one to two weeks old. Children above two years are not admitted, neither are ailing infants received. All children are daily given a bath. The food for babies under six months consists in cow's milk suitably diluted and sweetened. The older children are given gruel with milk, light rice-cakes, boiled rice with vegetables and bread. The institution, with the limited means at hand, has done valuable work during the five years of its existence, of which an account is given by S. Amritaraj writing in a recent issue of the *Indian Medical Gazette* of Calcutta. A great number of such establishments are needed to fill all the needs.

HOSPITAL, MEDICAL AND SPECIAL MEETINGS

PUBLIC HEALTH—THE TOPIC OF THE HOUR

The Forty-Sixth Annual Meeting of the American Public Health Association

The annual convention of the American Public Health Association, held in Chicago, December 8 to 12, had been originally scheduled for October 14 to 17, but the outbreak of the influenza epidemic made it impossible for the speakers and officers from the East and South to leave their respective posts of duty at home, and hence would have seriously crippled the meeting.

Influenza, its etiology, the prophylactic measures to be employed against it, the methods of treatment, and the administration measures for prevention and relief, were naturally among the most important and interesting subjects discussed. While a great deal of valuable experience bearing on the efficacy of prophylactic inoculation, of closing public places, of the use of masks, etc., was presented and warmly discussed, the whole field was still too new for finality, and the papers and discussions, though most interesting, are too extensive for even the most summary abstract here.

Conclusions Regarding Influenza

A committee composed of Dr. W. A. Evans, Chicago, chairman, Dr. D. E. Armstrong, Framingham, Mass., Dr. W. T. Woodward, Boston, Dr. W. H. Davis, Washington, D. C., and E. W. Kopf, New York, was appointed to sift the available evidence and draw up such conclusions as are possible in the present state of our knowledge. Among the more important conclusions of the committee were the following:

Deaths resulting from influenza are commonly due to pneumonia caused by one or more forms of streptococci or pneumococci or by the so-called influenza bacillus or bacillus of Pfeiffer, the invasion of the lungs being in each case apparently secondary to the initial attack.

"Evidence seems conclusive that the infective micro-organism or virus of influenza is given off from the nose or mouth of infected persons. It seems equally conclusive that it is taken in through the mouth or nose of the person who contracts the disease and in no other way except as a bare possibility through the eyes by way of the conjunctivae or tear ducts."

If this be admitted, then, the committee concludes, it is not necessary to await the discovery of the specific micro-organism or virus before taking preventive action, along the following lines: (1) breaking the channels of communication by which the infective agent passes from one person to another; (2) rendering persons exposed to infection immune or at least more resistant by the use of vaccines; (3) increasing the natural resistance of persons exposed to the disease.

1. The channels of communication may be broken by (a) prevention of droplet infection (of prime importance); (b) sputum control (the danger here seems to be due

chiefly to contamination of the hands and common eating and drinking utensils); and (c) supervision of food and drink (apparently unimportant as channels of infection).

2. In regard to the use of vaccines, the committee finds that, as the causative organism is unknown, there is no scientific basis for the use of any particular vaccine against the primary disease. The use of vaccine for the complicating infections rests on more logical grounds.

3. "The committee suggests that physical and nervous exhaustion should be avoided by paying due regard to rest, exercise, physical and mental labor, and hours of sleep. The evidence is conclusive, however, that youth and bodily vigor do not guarantee immunity."

Among administrative procedures, the committee recommends: The passage and enforcement of laws requiring proper ventilation and prohibiting the common drinking cup and the use of imperfectly washed glasses at soda fountains and other public drinking places; the prohibition of nonessential gatherings of crowds; the regulation of necessary gatherings so as to insure to each individual the maximum of floor space and fresh air; the closing of theaters, moving picture shows, saloons, dance halls, etc.; the reduction of church services to the lowest possible number; the prohibition of public funerals and accessory funeral functions; the employment of variable opening and closing hours in stores and factories to prevent overcrowding of street car and other transportation lines; the compulsory wearing of masks in hospitals and for all who are directly exposed to infection, especially barbers, dentists, etc.; and the isolation of influenza patients and the placarding of houses where proper quarantine regulations are not observed.

The committee agreed that no beneficial results could be derived from the use of alcoholic liquors.

Vitality and Inclusiveness of the Program

Apart from the influenza discussion, two impressions were outstanding from the program. One was the liveness, the exceeding practicality, of public health topics, and the other, the inclusiveness of the province of public health. Almost every subject led straight up to one or more of the burning issues of the day and thence out into general medicine or economics, or civics. Subjects such as health insurance and the relation of wages to public health evoked warm and interesting discussion. Major W. A. Sawyer, in discussing Mr. Michael M. Davis' paper on group medicine, remarked that, in the past, the practice had been to draw circles around certain areas and call them public health and to ignore what lay outside of these circles. Thus, a man who had tuberculosis was of interest from the point of view of public health and would be taken care of; a man who had appendicitis was of no interest and must take care of himself. Waste of effort and of life was the result of this arbitrary differentiation.

Of the many valuable papers read, it is possible to notice here only a few, and that in the most summary manner.

President Hastings' Address

The president of the association, Dr. Charles J. Hastings of Toronto, said that if the association were to stand as an association for the principles of democracy it must see that an efficient public health administration is maintained in every state in the Union and every province in the Dominion. Why, he asked, should many municipalities have an infant death rate of 120,150, or even more, per thousand births, while Chicago has an infant death rate of 106 per thousand births, New York City, one of 91 per thousand births, and Toronto, one of 80 to 85 per thousand births? Why should various cities in the United States have, in 1917, a typhoid death rate of over 50 per hundred thousand, while fourteen other cities have a typhoid death rate of less than 5 per hundred thousand? Every city in the American continent is entitled to the same public health advantages as the most favored cities with the low death rates mentioned.

To the end that the association might be able to promote the measures for which it stands, the executive officers have been devoting their energies to increasing the revenue, with such good effect that, whereas last year showed a slight deficit, the fiscal year ending August 31, 1918, showed a balance in the treasury of $5,330. This increased revenue has been derived mostly from corporate memberships, varying from $50 to $1,000, obtained from fifteen insurance companies and amounting to $4,340.

Dr. Hastings rather startled his audience by the revolutionary character of some of his remarks. "If I had but one method to choose to improve the health of the working classes," he said, "I should double their salaries."

The Work of the Department of Health and Sanitation of the United States Shipping Board

This subject was discussed in a paper by Lieut.-Col. Philip S. Doane, director of the Department of Health and Sanitation of the United States Shipping Board, who goes further into the same subject in an article prepared for THE MODERN HOSPITAL and published elsewhere in this issue (page 17).

Their line of work was planned upon the principles of camp sanitation which were worked out after the disastrous experiences of the Spanish war, but, in applying these principles, the board faced a difficulty with which the army has never had to cope—lack of discipline among the men. From beginning to end the question has been one of diplomacy, and Colonel Doane praises very highly the cooperation which the board always received from local health officers.

Everywhere the board worked in connection with authority already established, and, quite apart from the shipbuilding industry, there are many places which will long be grateful for the work which the board has done for them. In one town which supported a large shipyard on the lake, the drinking supply was found to be very badly contaminated by the Detroit River. The board put in a filter to take care of the drinking water of the shipbuilders temporarily and, at the same time, started a campaign of education in the town which ultimately resulted in a bond issue for the purpose of improving the drinking supply.

Another very significant example of success in winning cooperation is found in the case of Bath, Me., where sanitary conditions were very bad. This town could not afford to support a health official of its own, but an arrangement was reached whereby the board was allowed to place a man in this office who was vested with all the local authority which the town's own officer would have had.

The policy of working with the current was followed with the board's dealing with the men as well as with local authorities. They had no machinery for enforcing rules; so they relied on education and persuasion instead. Their method with drinking water illustrates this point. "We recognized the fact," said Colonel Doane, "that so long as water is wet, a thirsty working man will probably drink it regardless of warning signs." The solution was to make impure water inaccessible. Not only was good drinking water provided, but no other could be had, either for bathing or watering the grass.

Working on these general lines, the board was uniformly successful in the many different situations in which it worked. The problem was mainly one of sanitary engineering—drinking water and sewage—but these were not the only questions to be considered. Everything which had to do with the well-being of the men engaged in this great industry was carefully looked after. In the great shipyards where the men lived in the barracks, the condition of these barracks was the subject of investigation and suggestion, and, where the men went to homes in neighboring towns, the housing conditions, restaurants, and places of amusement were considered.

Dispensaries and hospitals were provided, and the men were encouraged to report and care for every sort of illness.

The Effect of the High Cost of Living on Public Health

Dr. Louis I. Harris, director of the bureau of preventable diseases of the Department of Public Health of New York City, raised the question whether public health nurses were not too often becoming mere bookkeepers to collect data which could just as easily be obtained through clerks without professional training. As an example of the valuable work which public health nurses can do when properly directed, he cited an investigation which had recently been carried out in New York on the effect of the high cost of living on working class families. The investigation covered 2,084 families, comprising 10,603 members, distributed racially and nationally among Hebrew, Irish, Italians, Austro-Hungarians, Germans, white Americans and colored persons. The range in incomes extended up to $5,000 a year. Of these families, 434, or 21 percent, had incomes ranging from $300 to $600 a year; 30 percent had incomes ranging from $600 to $900; 445 families, or 21 percent, had incomes ranging from $900 to $1,200. Over 70 percent of these families, therefore, had incomes under $1,200 a year. Ten percent were for the first time resorting to charity; 10 percent more were in debt. A tabulation of the dietary limitations showed the number of families that were dispensing with, or reducing the amount of milk, butter, eggs, etc., consumed in the household.

Food Needs of Military Hospitals

Major R. G. Hoskins of the sanitary corps explained that there are several differences between military and civil hospitals which affect the food supply question. In the first place, several diseases which in civil hospitals require dietary treatment for extended periods of time are seldom encountered in military hospital practice because such patients are discharged to other care. The proportion of men practically well is high in military hospitals. In the second place, a more rigid discipline is necessary in military than in civil hospitals. In the third place, an attempt is made to make the civil hospital a more or less attractive place to patients. There is naturally less solicitude on this point in military hospitals.

The general plan of organization of the base hospital mess is that the final local authority is the commandant; directly under him is the mess officer, who is usually an experienced hotel manager, or a mess sergeant, commissioned in the sanitary corps; associated with him, sometimes directly under him and sometimes directly under the commandant is the dietitian, with one or more assistants. The dietitian is usually trained in domestic science, but inexperienced in hospital work. The mess officer has the assistance of several sergeants in such matters as supplies, accounts, kitchen and dining room management, etc. Separate messes are typically maintained for sick officers, nurses, sick enlisted men, and hospital corps men. The segregation of the last two classes is generally incomplete. The officers' mess and nurses' mess are quasi-independent institutions.

The term "light diet," is ambiguous; sometimes it means easily digested, sometimes low in caloric value. It is usually interpreted by dietitians as meaning both. "Conditions would be more intelligently met if the requisitions from the various wards would specify the approximate number of calories desired and the distribution of this among the food components. In other words, the dietitian should be placed in a position closely analogous to that of the hospital pharmacist, rather than made, as she often is, the senior consultant working under the handicap of never having seen or heard of the individual patient for whom she is prescribing. To save labor, the light diet is often made up largely from the regular and may be merely the latter with some dish omitted."

The least satisfactory diet is that known as the regular. This is commonly compiled by mess officers or mess sergeants, unacquainted with dietary requirements, to meet the needs of normal persons and patients with widely varying needs. Major Hoskins mentioned eight classes, treated approximately alike. These were: (1) normal men, doing fairly hard work, requiring 3,500 calories; (2) ward attendants, normal men at sedentary work, requiring 3,000 calories; (3) ambulatory patients, metabolically normal, requiring 2,600 calories; (4) patients spending some time out of bed, but confined to wards, requiring 2,200 calories; (5) bed patients, metabolically normal, requiring 1,800 calories; (6) subacute febrile patients (especially those with empyema), with high caloric and high protein requirements; (7) other convalescent patients needing general feeding, but with poor appetites; (8) patients having constipation and needing laxative diet.

Major Hoskins gives the following table of food consumption at a base hospital:

	Pounds Consumption for One Week	Pounds per Man per Day
Bread	7,120	0.273
Potatoes	5,544	0.212
Beef	5,555	0.212
Fish	613	0.023
Milk (fresh)	9,483	0.363
Milk (evaporated)	2,775	0.106
Oranges	723	0.028
Beans (dry navy)	258	0.010
Sugar	3,085	0.118
Tomatoes (canned)	570	0.022
Peaches (canned)	630	0.025

Total number of commodities, 98.

The highest food waste, he says, is in the use of concentrated foods where these are not necessary. The elimination of waste is highly important, and the amount of waste in different hospitals varies greatly. In one hospital observed, the twenty-four-hour accumulation of garbage, for 823 persons, amounted to 1,660 pounds. In another hospital, in which a conservation officer was utilized, the edible waste was held down to 0.4 ounces per man per day, or less than three pounds per hundred men.

Officers Elected for the Coming Year

Dr. Lee K. Frankel of New York was elected president of the association for the coming year. New Orleans was chosen as the next meeting place. Other officers elected were: First vice-president, Col. J. W. S. McCullough, Toronto; second vice-president, Col. Victor C. Vaughan, Ann Arbor, Mich.; third vice-president, Dr. John Dill Robertson, health commissioner of Chicago; secretary, A. W. Hedrich, Boston; treasurer, Dr. G. H. Sumner, Des Moines, Ia.; members of the executive committee, Dr. A. J. McLaughlin, Washington; Dr. C. J. Hastings, Toronto; Dr. Peter Bryce, Toronto; Dr. J. N. Hurty, Indianapolis; Dr. W. C. Woodward, Boston.

DEPARTMENT OF NURSING

Conducted by ANNIE W. GOODRICH, Dean Army School of Nursing and CAROLYN E. GRAY, Principal City Hospital School of Nursing, Blackwell's Island, New York.

Please address items of news and inquiries regarding Department of Nursing to CAROLYN E. GRAY, Principal City Hospital School of Nursing, Blackwell's Island, New York.

THE TRAINING OF THIRD-YEAR STUDENTS IN PUBLIC HEALTH NURSING*

Education of Nurse a Vital Matter to Country at Large—Problem of Special Preparation Can Be Met Only by Patriotic Cooperation of Training Schools and Public Health Agencies

BY HARRIET FROST, Head of the Teaching Department, Visiting Nurse Society, Philadelphia.

While the desirability of giving to undergraduate nurses some training in public health work has been generally conceded, it has hitherto been considered chiefly in relation to the educational equipment of the nurse rather than to the needs of the community. The ready response of hospitals to the demand for a broader education of the nurse is both gratifying and significant of a tendency to look beyond the needs of the institution to those of the community. Quoting from a report of the educational committee of the National League of Nursing Education, "The war is making us realize what the public generally and the training schools have been slow to recognize—that nursing is, in a very special sense, a national service and that the training of the nurse is a matter of vital concern not only to the hospital and to herself but to the country at large. It is not enough that she should serve the needs of a single institution or of a limited group of people. She must be ready to serve the community and to meet conditions as she finds them in many different kinds of communities."

In taking stock of the educational system of our training schools, we must follow the lead of other professions and industries directly or indirectly engaged in winning this war and discriminate carefully between essentials and non-essentials, being guided in this discrimination by public demand rather than by time-honored traditions.

Let us consider for a moment just what the public is demanding today of the nursing profession.

1. First and foremost, skilled care of our soldiers and sailors.

2. Attention to the health and general welfare of those engaged in war industries, such as munition factories, shipyards, etc.

3. Extension of this same skilled care, through hospital or home nursing, to the families of those in military service.

The last two requirements, since they include all of preventive work, cover the entire field of public health nursing.

Perhaps nothing short of war could have so aroused a nation to its health needs, and a movement which for twenty years has crept along slowly by inches is now going forward by leaps and bounds. Communities that were once lukewarm, if not actually antagonistic, to any health program are now seriously asking what they must do, and are *doing* it.

Child welfare, which a few years ago was limited to spasmodic efforts in the form of baby shows, is now the serious concern not only of the nation, but of each community and each individual. Through the Woman's Council of National Defense and under the direction of the Children's Bureau, the women of this whole land are banded together in a grim determination to check the terrible waste of baby life. In many instances these committees of women, with funds in hand to carry on the work, are clamoring for trained public health nurses to organize their efforts and put them into effect at once.

Industrial plants, especially those employing women in large numbers, are realizing as never before the value of the industrial nurse in safeguarding the health of these workers both in factory and home.

With the present scarcity of doctors and with the civilian hospitals taxed to their utmost, visiting nurses are needed to fight disease in the homes of our people, where frequently in time of epidemics we find entire families stricken, as for example, in the present epidemic.

It is an injustice to the nurse and positively detrimental to the work to send into these fields women who have not been specially trained and prepared for the conditions they will meet.

Although an increasing number of schools are offering post-graduate courses, few nurses at the present time can avail themselves of this opportunity. Hence, we must turn to the source of supply, which is the training schools, and ask them, as a patriotic measure, to give their pupils this preparation, not as a substitute for post-graduate work, but as a means of meeting this national emergency.

The following is a resolution passed by the women's committee of the State Council of Defense:

"*Resolved*, That it is the sense of this meeting that public health nurses are absolutely essential in carrying out the program for Children's Year. We feel that there is at present a great shortage of public health nurses. The conference requests the subcommittee on public health nursing of the Council of National Defense, as well as the National Organization for Public Health Nursing, to devise and carry out ways of increasing the supply of public health nurses in the present emergencies. The conference also urges that the State Councils of Defense will use their influence upon universities and schools having nurses' training to provide the special four-months' course in public health nursing, which is so urgently needed."

No doubt, in every institution represented here, some of your hospital staff are wearing the special chevron given by the Red Cross to show that the service they are rendering to the civilian is considered of equal importance to that given to the soldier in cantonment or overseas. The other type of service so recognized is that of the public health nurse.

The addition of this course, involving, as it does, certain readjustments in our curriculum, may seem particularly difficult in these times of increasing demand and decreasing supply, but, like all problems of the present day, the need for action is immediate.

The course as generally adopted consists in a four months' affiliation with a public health agency which has approved teaching facilities as well as opportunities for field work under skilled supervision. The ideal plan, of course, is to utilize, when available, the facilities of the

* Read before the Twentieth Annual Convention of the American Hospital Association, Atlantic City, Sept. 24-28, 1918.

university, but the chief value of the training lies in the close connection between theory and practice.

While this whole subject belongs more especially to the educational department of the hospital, it seems a most appropriate time to enlist the interests of hospital superintendents, to whom, after all, the problems of each department are finally referred.

* * * *

PUBLIC HEALTH NURSING AND THE WAR*

War Has Shown Need of Preventive Medicine and Health Teaching in Homes—Requisites for Properly Equipped Nurse—Co-ordination and Extension of Public Health Nursing Through War Agencies

By MARY BEARD, President National Organization for Public Health Nursing.

Nothing could have promoted the ideas of preventive medicine so rapidly as the war has done. Physical examinations for the draft have shown the very great need for corrective work in early childhood. The public protection of maternity and infancy has never before received so much intelligent thought. Effective organization of child welfare work including government grants of money has reduced the infant mortality rate in England, France, and Germany. The presence of thousands of men gathered together in the cantonments has been the means of establishing organized protection of the surrounding communities from communicable disease. Such organized protection has become a matter of individual concern in many localities which heretofore have been ignorant of or indifferent to the importance of this subject. Industry has had its share in awakening the public to the value of measures which deal with the principles of preventive medicine. Its unprecedented "turn-over" of labor, which has meant the sudden congregation of great groups of strangers in localities where war industries exist, to be housed and fed, sent to school, and given proper facilities for recreation and health, has startled the public into attention.

Protective measures on the part of such great war organizations as the Red Cross and the Council of Defense have greatly increased and assisted this awakening of the public conscience. Departments of health in the several states are receiving a much more general response to educational propaganda, and in consequence such official health work has become greatly enlarged. Much private health work has been co-ordinated with official health work.

Preventive medicine has but one agent to recommend to meet the demand for health teaching in homes, in factories, and in schools, and this agent is the public health nurse. She is indispensable to all these health activities. In England, a thorough study of the subject brought the conclusion that a "home health visitor" to do effective child welfare work should have under her care not more than eight hundred families. If we accept this standard, we must set ourselves seriously to determine how health visitors may be found, educated, and directed in the best way. The graduate nurse has been considered the best material from which to develop the public health nurse.

A knowledge of illness and the care of illness is a very valuable asset to the visitor who wishes to gain a welcome in homes where the laws of preventive medicine must be taught. Whatever else may be added to this foundation of homely and solid instruction in actual bedside nursing care, it will be fatal to the popularity of the public health nurse if, in enthusiasm for preventive teaching, we lose sight of the unique approach to all types of homes possessed by the visiting nurse who accepts a fee for her service.

A good general education is necessary for the properly equipped public health nurse. One is encouraged to hope that the effort which was set in motion by the enormous demand for nurses brought about by the war and which found expression in the nurses' training camp at Vassar College, where more than four hundred young college women were entered to begin their nursing education last June, will interest many young women of good education to prepare for public health work. During the past year the urgent need for more specially educated public health nurses has brought about a considerable extension of the courses in public health nursing already established in various colleges. This extension has come about in some instances through gifts made by the Red Cross, both from local chapters and from the central organization itself. The Woman's Council of National Defense has, in some states, taken an active part in promoting the education of public health nurses. During the past year the Rockefeller Foundation made a grant to the National Organization for Public Health Nursing in order that educational work of this kind might be pushed as rapidly as possible.

Much of the necessary visiting for bedside nursing in community health work should be done by so-called attendants, who must be licensed as attendants. There is also another type of visit which might be paid by a health visitor who is not a nurse. These latter are visits such as must be paid to register the pregnant woman for prenatal visiting, to induce mothers to realize the importance of corrective treatment for the defects of their children, and to take patients to clinics and hospitals. Both types of visitors should be on a salary, and neither kind is practical without the supervision of a fully equipped public health nurse.

The more general the use of the less highly trained worker, the more important becomes the education of the public health nurse, for it is under her direction that successful co-ordination of community workers must come. When the war began, the United States Public Health Service had no public health nurses in its employ. Within a few months after our entry into the war, the Public Health Service had two hundred public health nurses at work in the extra cantonment zones.

Miss Mary E. Lent, on leave of absence from the National Organization for Public Health Nursing, is chief nurse for the Public Health Service, directing all public health nurses in the zones. The Red Cross, which is the recruiting agency for the Federal Public Health Nursing Service, has now taken the zone nurses upon its payroll. The work of the zone nurses is varied. Inoculation, following up of contacts, organizing a system of school nursing, teaching young wives of the army officers how to avoid the spread of measles or scarlet fever—these are some of the duties of the nurses who are engaged in trying to maintain "health at home to help the army."

The significance of their work lies chiefly in its future effect on the community. Once they are thoroughly understood, the public never relinquishes public health nursing activities, and, after the war is over, there will undoubtedly remain a permanent public health organization in many of the towns and cities included in the present extra cantonment zones. Red Cross Civilian Relief work in the families of soldiers is having a similar effect of education in the community.

* Read before the Twentieth Annual Convention of the American Hospital Association, Atlantic City, Sept. 24-28, 1918.

The campaign to save the lives of 100,000 babies this year is well under way, and in this campaign the public health nurse is an indispensable factor. In one state, the aggregate sum of $60,000 has been gathered together since the campaign began. By far the greater part of this sum will be spent upon public health nurses.

An illustration of the way in which public health nursing has been co-ordinated and extended through the agencies brought into being by the war is that of one of our large cities, where each of *forty* different organizations has been for some time directing its public health nursing force individually. The Woman's Council of Defense for the state in which this city is situated was concerned in developing infant welfare work. The committee applied to the National Organization for Public Health Nursing for an experienced person to make a survey of the situation and to present recommendations for reorganization. The result has been the adoption of a plan which co-ordinates all public health nursing activities, placing the executive direction in the hands of the city health officer and securing the continued interest and support of the various boards by giving representation on a central committee to each. The city, which before had been only about half covered by public health nurses, now maintains a general service throughout all sections. A surprising development of this co-ordination is that the proposed budget for the work is very considerably smaller than was the original one.

A Red Cross health mission is now on its way to Italy. Miss Mary S. Gardner is in charge of the public health nursing section. It will be her hope to establish for the civil population of Italy a service of home visiting that will include both bedside nursing and health teaching. In her opinion, such a plan demands the specially educated public health nurse, for upon her intelligent discrimination will depend the successful use of health visitors who are not so fully trained.

At the moment of writing this paper, the public health nurses of this city are facing a situation as intimately related to the war as any nursing on the battle front. Influenza has attacked the city, entered the great shipping works, and has been carried back into every district of the town. With her bag in her hand, the public health nurse of these districts is traveling from house to house all day long, working with all her strength to prevent pneumonia and to teach the laws of health which will control the further extension of the epidemic. Had there been no public health nurses left at home to meet this emergency, it is difficult to imagine how this war nursing could have been done.

MEETING THE PROBLEM OF A REDUCED NURSING STAFF*

How to Secure the Best Results for Students in Nurse Schools Which Have Patriotically Increased Their Numbers Because of War Conditions

By MARY M. RIDDLE, Superintendent of Newton Hospital, Newton Lower Falls, Mass.

The war has caused many changes in the life-long habits of all grades of people. The old things have passed away, and from their death is springing up, even now, an entirely new order. Values are being readjusted. The important matters for consideration in the daily routine of living ten years ago have disappeared. They are dead and forgotten, and it is to be hoped their Gabriel will see to it that they are never resurrected. These changes have been in the physical as well as in the intellectual and moral sides of life—physical, as seen in the simpler forms of living, independent of food, fuel or other conservators; intellectual, as noted in the stand taken by colleges and all higher institutions of learning in their relation to the war, and methods of assisting in its prosecution; moral, as evidenced in the greater respect shown by men for other men in efforts to adjust differences.

In common with all other institutions, whether charitable or commercial, whether of learning or for manual training, civilian hospitals have felt from the beginning of America's part in the great world war that they have some very definite duties, not only to the sick within their walls, but also to the great world outside. True, the greater number of them had previously been alert and had heard and responded to the calls of the Red Cross for help in each belligerent country without regard to any thought save that of service. But when it became necessary not only to meet all the requirements of the present, but also to make some provision for the future, they immediately devoted themselves to consideration of plans for doing work upon an even larger scale.

Most of them in or near the great centers of population turned over at least a part of their buildings and equipment for the use of the army or navy, or both, as the case required. Besides giving their physical properties, they gave also of their best working forces—not only "man power," but "woman power" as well. It has been a common occurrence that hospitals have parted with their very best, and in many instances one might say, of their all, in order that the progress of the war might continue in the most satisfactory manner. Superintendents and heads of training schools have gone from the same hospital, and have taken with them the best of the working force that the institution could furnish. At the same time, boards of trustees and the few remaining officers of the hospital have planned, and carried into effect, arrangements for broadening the scope for its usefulness at home. It has all been commensurate with the degree of activity illustrated by the shipbuilding progress, and the construction in other departments of national work. True, it doesn't loom large, because these institutions have not had great moneys at their disposal; neither have they had financial aid from the state or national government; nor the names of great captains of industry or statesmen assisting or influencing their work; and doubtless when the history of the great world war is written, they will receive no mention. Yet for individual effort and unselfishness of purpose they will not be surpassed.

Among the results of their efforts may be mentioned construction of new buildings for the housing and care of more patients, and the increase of a nursing force capable of meeting the increased work. Patriotism and valor have influenced numberless institutions to go to the limit of their financial ability and their power for making good in all that they have undertaken. It has been no small task for the hospital schools of nursing to find profitable means of instruction for their increased numbers of pupils. The increase was made in order that there might be a larger final output of graduate nurses capable of meeting the demands in the foreign field caused by the war, which has already called from home duty among civilians a large percentage of the nurse population of the country. In making these increases in the nursing schools, it has never been the intention of the authorities of the schools to decrease, in any way, the efficiency of those to be graduated under such circumstances.

*Read before the Twentieth Annual Convention of the American Hospital Association, Atlantic City, N. J., Sept. 24-28, 1918. The discussion on this paper was published in the report of the convention in our October, 1918, number.

It has never been the idea of such hospitals or schools that the nurses so trained should have less than the three year's course, because it has been believed that now, as never before, a thorough education in the art and science of nursing is required, and the impossibility of accomplishing this in a shortened period of training is perfectly realized.

The authorities reasoned that if, in the old days of peace and plenty, it required three full years to create a competent, well developed nurse, the same complete preparation is much more essential today, when the nation's dependence upon her skill and judgment is multiplied many times. Certainly the nation cannot afford to permit anything to retard the preparation for efficiency in the nurse, who, by her skill and faithful adherence to duty, may save the lives of its soldiers at the front, or of civilians in their homes.

According to the increase of the power of the destroyer, so also must be the increase of the opposing, preserving, saving power. It has not infrequently happened that these institutions have doubled the number of nurses in their schools, and that, having done so, their attention has next turned to a consideration of the best means for securing adequate opportunities for instruction or practical experience. In most institutions, the daily average number of patients has not enlarged in proportion to the increase in the number of workers, and therefore the wards of the hospital cannot be wholly depended upon to furnish that which is required.

There, are, however, many so-called *small* hospitals, remote from the great centers, that have hitherto relied upon the employment of graduate nurses for the nursing work of their hospitals. Having felt the shortage of graduates within the last year and a half, they have been sorely pressed to know how the required care may be given their patients, and have been encouraged to find the necessary aid in the enlarged schools, which are glad to loan or detail their pupils to these small hospitals. The cooperation thus established has truly been a blessing alike to the one who gives as well as to the one who receives. Too much credit cannot be given these small hospitals for the conscientious principles they have maintained in refusing to organize nurse schools, knowing their inability to render value received to the pupil for her services to them. For this benefit alone, conferred upon the world as well as upon the nursing profession, they ought to have their reward; and good nurses should feel upon themselves the incumbency of a duty to assist them whenever possible.

Besides these methods of solving the problem there are others, notably the advantages offered by the great public health work. Courses are offered by various colleges in public nursing, and they are almost boundless in their usefulness. True, they are somewhat expensive, but not exceedingly so, and the hospitals which have been sufficiently patriotic to enlarge their schools solely for the good of the nation and its war or disease-stricken men, will not be inclined to hesitate at the slight addition to their expense accounts by reason of this advantage given to their nurses, and indirectly to the very people whom they would help. It is reasonable to conclude that the public health nurse who gives her services to the soldier's family at home gives it to him and to his country. Districts which have been regularly under graduates as visiting nurses have relieved them for greater responsibilities and have taken instead nurses who have had the regularly prescribed course. Those are all material and immediate proofs of the value of the instruction in public health nursing and do not take into account the demand for such workers in the countries devastated by war.

Then, too, there are the hospitals for the treatment of mental diseases, some of which have difficulty in securing pupils for a nurse school. No greater developing process can be found for the nurse, and if the increased schools were to secure an affiliation with a hospital for the insane, two purposes might thereby be served; the mentally ill might have the benefit of an enthusiastic new element in their midst, and a most useful period of time might be spent by the nurse.

The curriculum of the school can be slightly altered to secure advantages which were not often given the nurses in the past, but which ought to be much prized in the present. Hospital housekeeping can be introduced under the guise of domestic science in a way to dignify the work and cause the nurse to have greater respect for it, to become more proficient in it, and to practice it with more zeal in the years to come, to the great comfort of those private families which employ her for their sick, as well as to her own advantage and the fair fame of the professional nurse of her period.

The dietetic laboratory could easily furnish additional opportunities for the nurse in training; the preparation of milk for babies, the preparation of food in general, and instruction in food values, as related to the human body as well as to their cost, could well have a more conspicuous place in the curriculum and could be given more time.

By the use of more ingenuity and thoughtful attention on the part of instructors, a greater amount of practical work can be done in the class room. A system for repetition in routine can be established there that will go far toward forming correct habits of work, and enabling the nurse to learn more quickly that to be truly proficient she must be able to perform her work automatically while she watches the condition of her sick patient, notices his needs, and ministers to them. Class rooms have never been fully utilized, and, as an instructor studies the problem she will find possibilities for the development of her pupils opening up and increasing on every hand.

* * * *

PROBLEMS OF SOUTHERN TRAINING SCHOOLS FOR NURSES

Lack of Uniformity in Standards for Accredited Training Schools Prevents University Affiliation—Appropriation for Support of Hospitals Too Limited to Provide Proper Instruction for Nurses

By E. MILDRED DAVIS, A.B., R.N., Dean of Training School for Nurses, Charity Hospital, Vicksburg, Miss.

The system of enrolling training schools for nurses as educational institutions has not been adopted by the boards of education or state universities of the South. There is no general cooperation between the superintendents of training schools for nurses and the principals of our secondary schools, and none can be established until more uniform standards for accredited training schools are observed.

A requirement for accredited schools of one state specifies that the training school must be connected with a general hospital of at least ten beds in capacity, with a daily average of five patients. It is difficult to imagine any hospital of ten beds being described as a general hospital. A small percentage of our Southern training schools admit only high school graduates, but the majority admit candidates with less education.

In a large percentage of the institutions which are

supported by state funds, the governor of the state appoints the board of trustees and the surgeon-in-charge. As the governor may not be reelected, these appointees are subject to removal from office after their respective terms expire. The superintendents of training schools connected with the above-mentioned institutions are often transient. One may remain for the entire administration of a surgeon-in-charge (four years), while others come and go too frequently for the welfare of student nurses.

Several of these hospitals have not provided a residence for nurses, dormitories or rooms in the institution being used for this purpose, and often, in cases in which a residence is provided, it is not equipped with a class room, demonstration room, laboratory, library, and diet kitchen. Comparatively few of our schools maintain a resident nurse instructor who has been trained in a teaching center; others do not employ a dietitian, but instead have a steward or housekeeper who is not qualified to instruct student nurses.

Neither teaching centers for the training of superintendents for hospitals nor schools for nurses and nurse instructors have been established in connection with the universities of the South. The George Peabody College for Teachers, Nashville, Tennessee, offers a course of eleven months for the field training and theoretical instruction of public health nurses. The proposition of establishing a department of nursing at the Sophie Newcomb College of New Orleans has been discussed. The Graduate Nurses' Association of Charleston, South Carolina, has sent a formal suggestion to the president and trustees of the College of Charleston that a department of nursing be established at that institution.

A City League of Nursing Education has been organized in New Orleans, and efforts have been made to establish a State League of Nursing Education for Louisiana, this to apply for affiliation with the national league. According to the report of the National League of Nursing Education for 1917, sixteen state leagues are affiliated, but the only Southern state recorded is Arkansas.

The appropriations for the support of our Southern hospitals are, in many instances, too limited to provide for the proper instruction of student nurses. This problem has usually been met by affiliation with other institutions capable of providing the required facilities or courses of instruction. The hospital laboratory may be used for demonstrations in chemistry, bacteriology, and materia medica. A local library can be resorted to for reference, and the librarian encouraged to order books for nurses. The domestic science teacher of a local high school may be engaged to instruct the student nurses in the absence of a dietitian. An up-to-date pharmacist is qualified to teach chemistry or materia medica. In the absence of a nurse instructor, the teaching of practical nursing procedures should be carefully supervised by the directress of nurses. The medical branches of nursing science, anatomy, obstetrics, bacteriology, may be taught by resident physicians. Every institution conducting a training school should affiliate with other institutions for any branch of nursing service not represented, for only well-trained nurses can creditably represent our profession.

At their annual meeting, held in Rochester December 3, 4, and 5, the New York Nurses' Association and the League for Nursing Education went on record as advocates of the eight-hour system in nurse training schools. They are particularly opposed to twelve-hour night duty for pupil nurses, believing it to be a menace to health and a relic of conditions which should have been bettered years ago.

BULLETIN OF THE AMERICAN HOSPITAL ASSOCIATION

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Committees Appointed

The president of the association has appointed the following committees:

WAR SERVICE COMMITTEE

Dr. S. S. Goldwater, chairman, superintendent Mount Sinai Hospital, New York.
Daniel D. Test, superintendent Pennsylvania Hospital, Philadelphia.
Dr. A. R. Warner, superintendent Lakeside Hospital, Cleveland, O.
Dr. A. B. Ancker, superintendent City and County Hospital, St. Paul, Minn.
Dr. B. F. McGrath, professor of the principles of surgery, Marquette University, secretary-treasurer Catholic Hospital Association of the United States and Canada, Milwaukee, Wis.
Howell Wright, Secretary.

COMMITTEE ON OUT-PATIENT WORK

Michael M. Davis, Jr., chairman, Boston Free Dispensary, Boston.
Term expires convention, 1919.
Dr. R. B. Armstrong, Health Demonstration Committee, Framington, Mass.
Term expires convention, 1920.
Dr. Robert J. Wilson, Department of Health, New York City.
Term expires convention, 1921.

COMMITTEE ON LEGISLATION

Pliny O. Clark, chairman, superintendent Ohio Valley General Hospital, Wheeling, W. Va.
Dr. Charles H. Young, superintendent Presbyterian Hospital, New York City.
Dr. Louis H. Burlingham, superintendent Barnes Hospital, St. Louis, Mo.
Howell Wright, Secretary.

MEMBERSHIP COMMITTEE

Dr. John M. Peters, chairman, superintendent Rhode Island Hospital, Providence, Rhode Island.
H. E. Webster, superintendent Royal Victoria Hospital, Montreal, Canada.
Rev. Maurice F. Griffin, St. Elizabeth's Hospital, Youngstown, Ohio.

COMMITTEE ON HOSPITAL ACCOUNTING

Cornelius S. Loder, chairman, 30 Church Street, New York City.
Maj. A. K. Haywood, superintendent Montreal General Hospital, Montreal, Quebec.
Miss K. M. Prindiville, superintendent Joseph Lawrence Free Public Hospital, New London, Conn.

COMMITTEE ON CONSTITUTION AND RULES

Maj. Richard P. Borden, chairman, Union Hospital, Fall River, Mass.
Dr. T. Malcolm MacEachern, general superintendent Vancouver General Hospital, Vancouver, B. C.
Dr. Thomas D. Howell, superintendent New York Hospital, New York City.

AUDITING COMMITTEE

Dr. Stewart Hamilton, chairman, superintendent Harper Hospital, Detroit, Mich.
R. G. Broderick, superintendent San Francisco Hospital, San Francisco, Cal.

Dr. H. Phillip Hill, superintendent Robert D. Green Memorial Hospital, San Antonio, Texas.

COMMITTEE ON TIME AND PLACE

Mr. Asa Bacon, chairman, superintendent Presbyterian Hospital, Chicago.
Dr. W. G. Nealley, superintendent Brooklyn Hospital, Brooklyn, N. Y.
Howell Wright, executive secretary.

COMMITTEE ON NOMINATIONS

Dr. Lewis A. Sexton, chairman, superintendent Hartford Hospital, Hartford, Conn.
Dr. Ralph B. Seem, assistant superintendent Johns Hopkins Hospital, Baltimore, Md.
Miss Lydia H. Keller, R.N., secretary, Minneapolis State Hospital Ass'n, St. Paul, Minn.

Officers of Sections of the American Hospital Association

The following officers were elected by the sections of the association at the twentieth annual convention at Atlantic City, N. J. In co-operation with these officers and others, the president and executive secretary of the association will shortly, in accordance with the provisions of the constitution, make plans for the program of papers and discussion of the 1919 convention.

SECTION ON DIETETICS (AMERICAN DIETETIC ASSOCIATION)

Miss Lulu Graves, president and chairman, Home Economics Building, Cornell University, Ithaca, N. Y.
Miss E. M. Geraghty, secretary, New Haven Hospital, New Haven, Conn.

SECTION ON HOSPITAL ADMINISTRATION

Dr. Louis H. Burlingham, chairman, superintendent Barnes Hospital, St. Louis, Mo.
Dr. Ralph B. Seem, secretary, assistant superintendent Johns Hopkins Hospital, Baltimore, Md.

SECTION ON HOSPITAL CONSTRUCTION

Dr. George O'Hanlon, chairman, superintendent Bellevue Hospital, New York City.
Oliver H. Bartine, secretary, Member of Hospital Committee, New York State Charities Aid Association, New York City.

SECTION ON NURSING

Miss Georgia M. Nevins, chairman, American Red Cross, Washington, D. C.

SECTION ON OUT-PATIENT WORK

Michael M. Davis, Jr., chairman, Director Boston Free Dispensary, Boston, Mass.
Clarence E. Ford, secretary, superintendent of Medical Institutions of New York Board of Charities, New York City.

SECTION ON SOCIAL SERVICE

John E. Ransom, chairman, Central Free Dispensary, Chicago.
Miss Gertrude Farmer, secretary, Boston City Hospital, Boston.

1919 Convention

Considerable progress has been made in the plans for the 1919 convention. The dates of the convention will be September 29 and 30, and October 1, 2, and 3, 1919.

Convention headquarters will be the Hotel Gibson.

GENERAL AND EXECUTIVE COMMITTEE ON LOCAL ARRANGEMENTS

Upon recommendation of the Cincinnati people, the president has appointed both a general and an executive local committee on arrangements, the general committee consisting of nearly one hundred people as a representative Cincinnati committee. Its very make-up is indicative of the interest manifest in the twenty-first annual convention of this association.

The executive committee, of which both the president and executive secretary of the association are members *ex officio*, will be the active committee and will have in charge all local matters pertaining to the convention. The chairman of both the general and executive committee is Maj. C. R. Holmes, the builder and guiding genius of the famous Cincinnati General Hospital. The secretary of both committees is Mr. Thomas Quinlan, manager of the convention and publicity department of the Cincinnati Chamber of Commerce. The office of the executive committee will be in the Cincinnati Chamber of Commerce. The membership of the general committee is as follows:

SUGGESTED MEMBERS OF CINCINNATI GENERAL COMMITTEE, AMERICAN HOSPITAL ASSOCIATION, 1919 CONVENTION

Maj. C. R. Holmes, General Chairman.
Walter J. Friedlander, Vice Chairman, president Hisey-Wolf Machine Co.
Honorable John Galvin, mayor of Cincinnati.
John R. Holmes, safety director.
Major A. C. Bachmeyer, superintendent Cincinnati General Hospital.
Rev. A. G. Lohman, superintendent Deaconess Hospital.
Dr. Walter E. List, acting superintendent Cincinnati General Hospital.
Laura R. Logan, superintendent of nursing, General Hospital.
M. M. Russell, superintendent Jewish Hospital.
Alice Thatcher, superintendent Christ Hospital.
Louise Golder, superintendent Bethesda Hospital.
Rev. Christ Golder, superintendent Scarlet Oaks Sanatorium.
Sister Victoria, superintendent Good Samaritan Hospital.
Sister F. Jerome, superintendent Seton Hospital.
Mary M. Roberts, superintendent C. R. Holmes Hospital.
Sister M. Alacoque, superintendent St. Mary's Hospital.
Dr. F. W. Langdon, superintendent College Hill Sanatorium.
Sister Apollinaris, superintendent St. Francis Hospital.
Lillian C. MacAdams, superintendent Episcopal Hospital for Children.
Dr. Earl A. Martin, acting superintendent Cincinnati Tuberculosis Hospital.
Anna Kypke, superintendent Ophthalmic Hospital.
Dr. Chas. S. Rockhill, medical director Rockhill Sanatorium.
Dr. Robert Sattler, Ophthalmic Free Dispensary.
Thos. W. Allen, president John H. Hibbon Dry Goods Co.
Vachel W. Anderson, Anderson Estate, 309 E. 4th St.
Otto Armleder, O. Armleder Co., 12th & Plum Sts.
Brent Arnold, Louisville & Nashville R. R. Co.
Levi A. Ault, president Ault Wiborg Co., 7th & Culvert.
George R. Balch, Cincinnati Realty Co., Hotel Sinton.
Frank H. Ballman, Irwin, Ballman & Co., 330 Walnut St.
Charles Boldt, Chas. Boldt Co., Davis Lane & P. C. C. & St. L. Ry.
C. A. Bosworth, president Second National Bank, 9th & Main.
Chas. W. Breneman, Chas. W. Breneman Co., 2045 Reading Rd.
John E. Bruce, Bruce & Bruce, 18 Masonic Temple.
John J. Burchenal, general manager Procter & Gamble Co., Gwynne Bldg.
Casper H. Burton, Reading Road & Burton Ave.
W. Y. Cartwright, vice president Union Gas & Electric Co.
Alf. C. Cassatt, Ernst, Cassatt & Cottle, 1612 1st Nat'l.
Albert H. Chatfield, president Chatfield & Woods Co., 3rd & Plum.
Chas. J. Christie, The Fleischmann Co., 419 Plum St.
Jess R. Clark, president Union Central Life Ins. Co.
Edward Colston, Harmon, Colston, Goldsmith & Hoadley, 300 St. Paul Bldg.
Geo. D. Crabbs, Philip Carey Mfg. Co., Lockland.
Geo. F. Dana, president Peerless Foundry Co., Elmwood Pl.
Thomas J. Davis, cashier First National Bank.
Walter A. DeCamp, DeCamp & Sutphin, 1210 Traction Bldg.
Geo. F. Dieterle, president Union Distilling Co., 3rd & Race.
Robert H. Doepke, president The Doepke Co., 1819 1st Nat'l.
Walter A. Draper, vice president Cincinnati Traction Co.
Val. Duttenhofer, Jr., Val Duttenhofer Sons Co., 8th & Sycamore.
Edward W. Edwards, Edwards Mfg. Co., 5th & Eggleston.
Richard P. Ernst, Ernst, Cassatt & Cottle, 1612 First National Bank Bldg.
Tylor Field, vice president Ferro Concrete Construction Co., Richmond & Harriett Sts.
W. W. Freeman, president Union Gas & Electric Co.
Jacob W. Freiberg, president Freiberg & Workum Co., 216 E. Front.
Maurice J. Freiberg, Freiberg & Workum Co., 216 E. Front St.
Joseph Garrettson, managing editor Cincinnati Times Star.
John Gates
Fred. A. Geier, president Cincinnati Milling Machine Co., Oakley.
Edwin C. Gibbs, Neare, Gibbs & Lent, Citizens Bank Bldg.
Edward Goepper, The Herman Goepper Co., 322 Hunt St.
Aaron W. Goldsmith, Harmon, Colston, Goldsmith & Hoadley.
Harry L. Gordon, Gordon, Morrill & Ginter, 909 Provident Bank Bldg
Edwin C. Goshorn, National Lead Co., 7th & Freeman Ave.
James Albert Green, president Matthew Addy Co., 1800 1st Nat'l.
Charles T. Greve, Attorney-at-Law, 22 Carew Bldg.
Judson Harmon, Harmon, Colston, Goldsmith & Hoadley, 300 St. Paul Bldg.
George W. Harris, trustee of the Sinking Fund, 309 Traction Bldg.
Charles L. Harrison, L. B. Harrison Estate, 1602 1st Nat'l.
Louis J. Hauck, president John Hauck Brewing Co., Central Ave & Dayton Sts.
J. J. Heekin, The James Heekin Co., Walnut & Water Sts.
Chas. A. Hinsch, president Fifth-Third Nat'l Bank.
George Hoadley, Harmon, Colston, Goldsmith & Hoadley, 300 St. Paul Bldg.
James C. Hobart, Triumph Electric Co., South St., Oakley.
Harry M. Hoffheimer, Pogue, Hoffheimer & Pogue, 914 1st Nat'l.
Reuben A. Holden, 18 E. Fourth St.
Howard C. Hollister, judge U. S. District Court, 320 U. S. Custom House.
James M. Hutton, W. E. Hutton & Co., First Nat'l Bank Bldg.
William T. Irwin, Irwin, Ballman & Co., 330 Walnut St.
Franklin Ives, president Globe Soap Co., United Bank Bldg.
Frank J. Jones, president Little Miami R. R. Co., 141 E. 4th.
W. A. Julian, Julian & Kokenge, 426 E. Fourth St.
Baynard L. Kilgour, general manager Cincinnati & Suburban Bell Telephone Co., Telephone Bldg.
Albert Krippendorf, Krippendorf-Dittman Co., 622 Sycamore.
B. H. Kroger, president Kroger Grocery & Baking Co., Florence Ave.
Irwin M. Krohn, Krohn-Fechheimer Co., Pendleton & Dandridge Co.
Robert Kuhn, president Sherbrook Distilling Co., Canal & Sycamore.
Harry L. Laws, James H. Laws & Co., Whateley near Evans.
Richard K. Le Blond, president R. K. Le Blond Machine Tool Co.
Frank K. Lee, John Church Co., 109 W. Fourth St.
Harry M. Levy, 309 Traction Bldg.
Eugene L. Lewis, vice-president Guarantee Title & Trust Co., 909 Mercantile Library Bldg.
Thornton Lewis, manager Kanawha Dispatch, Union Central Bldg.
C. J. Livingood, manager of Estate of Thos. J. Emery, 414 Walnut St.
Nicholas Longworth, 1612 First Nat'l Bank Bldg.

Judge Wm. H. Lueders, Probate Court, Court House.
Joseph M. Magnus, 121 E. Eighth St.
Lawrence Maxwell, Jr., Maxwell & Ramsey, 2208 Union Central Bldg.
D. B. Meacham, Rogers, Brown & Co., 73 Carew Bldg.
Wm. B. Melish, president Bromwell Brush & Wire Goods Co., 612 W. Sixth St.
Arthur R. Morgan, vice-president U. S. Printing & Lithographing Co.
E. H. Murdock, president Queen City Printing Ink Co., 1913 South St.
J. P. Orr, president Potter Shoe Co., 18 W. Fifth St.
Miller Outcalt, Attorney-at-Law, Telephone Bldg.
Elliott Pendleton, Attorney-at-Law, 306 Lincoln Inn Court.
Maurice E. Pollak, vice-president Pollak Steel Co.
Robt. W. Pogue, H. & S. Pogue Co.
T. C. Powell, vice-president C. N. O. & T. P. Ry. Co., Ingalls Bldg.
A. Prince, president L. M. Prince Co., W. Fourth St.
Sidney E. Pritz, The Strauss-Pritz Co., 909 Sycamore.
Wm. Cooper Procter, The Procter & Gamble Co., Gwynne Bldg.
George Puchta, president Queen City Supply Co.
Joseph Rawson, vice-president First National Bank.
Ralph F. Rogan, The Procter & Gamble Co.
Casper H. Rowe, president Market National Bank.
W. S. Rowe, president First National Bank.
Jacob G. Schmidlapp, The Union Savings Bank & Trust Co.
W. Kesley Schoepf, president Cincinnati Traction Co.
Edward Senior, president Senior Powder Co., Mitchell Bldg.
Stewart Shillito, president John Shillito Co.
A. Clifford Shinkle, president Central Trust Co.
Murray Shipley, vice-president The Trailmobile Co., 538 E. 5th.
Rufus B. Smith, 1602 First Nat'l Bank Bldg.
Bellamy Storer, 115 E. Fourth St.
Charles P. Taft, president Cincinnati Times Star.
Peter G. Thompson, Paper Mfg., Oakwood & Belmont Ave., C. H.
M. F. Westheimer, president The Susquemac Distilling Co.
Charles Wiedemann, president The Geo. Wiedemann Brewing Co., Newport, Ky.
W. F. Wiley, Cincinnati Enquirer.
Harry F. Woods, vice-president The Chatfield & Woods Co.
H. A. Worcester, District Director, U. S. R. R. Administration, 718 Union Central Bldg.
David J. Workum, 1103 First Nat'l Bank Bldg.
William Worthington, 44 Wiggins Block.
Clifford B. Wright, president Union Savings Bank & Trust Co.
Henry G. Yeiser, president Globe-Wernicke Co.

The membership of the executive committee on local arrangements is as follows:

Maj. C. R. Holmes, chairman.
Rev. A. G. Lohmann, vice-chairman, superintendent Deaconess Hospital, Cincinnati.
Dr. Walter E. List, superintendent Cincinnati General Hospital.
Mr. Walter J. Friedlander, president Heisy-Wolf Machine Company.
Mr. Robert Crane, R. G. Dunn Company.
Mr. Thomas Quinlan, secretary, Cincinnati Chamber of Commerce.

Hospital Telephone Service Under Federal Control

Hospital telephone service, including rates and charges and discounts, is being made the object of inquiry by the secretary's office. Mr. Cornelius S. Loder, who has made some preliminary protests to the postmaster general in behalf of individual hospitals, has referred the matter to the office and urged immediate action on the part of the association. There is no standardization of charges to the hospitals by the various telephone companies including special discounts for cost of service. Such should be possible under Federal control.

In a communication to the association, Mr. Loder urges that not only should discounts be made to hospitals on certain classes of service, but the same charges should be made hospitals as is made to industries where new or additional equipment is required. Under private telephone management charges for installation of service were seldom made. Such charges are now made under government control, but it is urged that hospitals should not be obliged to meet these charges. Lack of uniformity in hospital telephone contracts is also called to our attention. For example, in New York and New Jersey, discount on the entire telephone contract is 25 per cent, including all calls excepting toll and extra local calls. In most of Connecticut the discount is 20 per cent on the cost of one trunk line only. In some places there is no discount, while in others it is said the discount is considerably more.

In a letter under date of November 9, Mr. W. H. Lamar, solicitor in the post office department, informed Mr. Loder as follows: "The Postmaster General has appointed a committee to investigate and report upon the matter of standardization of telephone rates throughout the United States. When the report is received it may be that the matter of discounts to hospitals will be taken up."

This communication emphasizes the importance of securing adequate information to be presented to the post office department for consideration. A communication on this subject is being prepared and will be sent to the various hospitals as soon as possible. In the meantime, the secretary would be glad to hear from any of the hospitals relative to their increased cost of telephone service under Federal management, what discounts they receive on their entire telephone contract, and what charges are made for installation of service and charges for equipment. Communication on this subject should be sent to the secretary at 308 Anisfield Building, Cleveland.

Hearings Before Health Insurance Commissions

The health commissions of Connecticut, Illinois and Ohio have held public hearings at different intervals during the past few weeks. Reports of some of these hearings, as well as legislative proposals by health insurance commissions, will be included from time to time in the Bulletin of the association.

THE OHIO COMMISSION HEARINGS

Sickness prevention was the keynote of the hearings. While it was recognized by many present that health insurance seems to be inevitable, representatives of the employer and of labor, the medical profession, hospitals, and various public health organizations expressed a lively interest in proposals to increase the public health activities of the state and local government. It is very likely that the next Ohio general assembly will have to consider legislative proposals to increase appropriations to the state department of health for disease prevention work, for the organization of a state-wide system of medical inspection of the public schools, and to reorganize the county health departments. Proposals for old age pensions were also discussed.

The importance of medical and hospital care as a part of any sickness or health insurance proposal was emphasized—not the limited care that it now occasionally provided under some of our workmen's compensation laws, but complete medical and hospital care to the extent of rehabilitation of the injured or sick individual as far as possible. It was also emphasized that it is now easy for the very wealthy and the very poor to secure the best medical and hospital attention, but very difficult for the self-respecting person of the middle class who is unable to pay for private room and skilled specialists, etc., but at the same time is unwilling to accept charity.

The commission was urged to give consideration to this group in any proposals of sickness or health insurance. The medical and hospital facilities in Ohio are inadequate to meet even the present demand.

Of special interest to hospitals is the emphasis which was laid upon recognition of the principle of hospital cost for hospital service rendered. Recognition of this principle by the commission was urged as a matter of justice to both the sick and those who provide care for the sick.

Institutional Membership

Applications for institutional membership in the association have been received from the following institutions:

St. Louis Maternity Hospital, St. Louis, Mo.
Hospital of Deformities and Joint Diseases, New York City.
City Hospital of Akron, Akron, Ohio.
Physicians' and Surgeons' Hospital, Corsicona, Texas.
St. Francis Hospital, Pittsburgh, Pa.
Lakeside Hospital, Cleveland, Ohio.
Vincent Memorial Hospital, Boston, Mass.
Baird-Dulaney Hospital, Dyersburg, Tenn.
Milwaukee Infants Hospital, Milwaukee, Wis.
West Ellis Hospital, Chattanooga, Tenn.
West Side Hospital, Chicago.
Englewood Hospital Ass'n, Chicago.
Newell & Newell Sanitarium, Chattanooga, Tenn.

Application blank will be found on page 72 of the advertising section of this number.

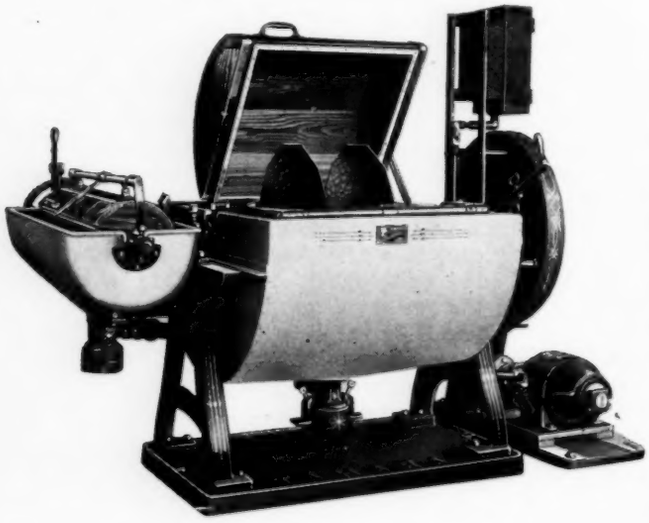
NEW INSTRUMENTS AND EQUIPMENT

VINCENZ MUELLER, Technical Editor.
GEO. W. WALLERICH, Associate Editor.

Please address items of news and inquiries regarding New Instruments and Appliances to the editor of this department, 327 Southeast Avenue, Oak Park, Illinois.

Automatic Silver-Burnishing Machine

The machine is known as the Tahara automatic silver-burnisher. The manufacturers guarantee that it will restore the silverware to the original luster and finish which it possessed when it first came from the shop. This new appearance is said to be obtained with no injurious effects to the silverware, as the apparatus does not remove the most delicate silver-plating, but on the contrary has the effect of hardening and preserving it. The actual burnishing is accomplished by means of a quantity of small highly finished steel balls and pins, which by continuous rolling over the surface of the plate do the work. The principle is not fundamentally new, as silversmiths have for many years used steel burnishing tools in finishing the finest silverware, because of the high polish secured, and because of the hardening effect upon the plating, and in designing the Tahara silver



Tahara automatic silver-burnishing machine.

burnishing machine the inventor had in mind the same principle. Each polished ball or pin is a miniature burnisher, and the pressure which the silversmith would apply to a hand tool is obtained in the machine by the aggregate weight of the entire mass of balls and pins.

The apparatus is made in several sizes and types, such as for the purpose of burnishing flatware only, as well as in combination form for flat and hollow-ware.

High Vacuum Pumps

The Cenco-Nelson pump illustrated here represents the most recent development in high vacuum pumps for laboratory and commercial purposes. It is compact, operates with very little expenditure of power, and requires no attention when in operation; in fact, it is very carefully constructed and consequently should last indefinitely. It is about seven inches high by five inches in diameter at the base and weighs approximately ten pounds. The pulley is grooved for one-fourth-inch belt.

These pumps consist essentially of rotating gears in pairs, running in accurately fitting housings. The whole mechanism is immersed in a cistern of oil, which serves the double purpose of sealing all the joints air-tight, and of lubricating the moving parts. The pumps are made with either two or three pairs of gears and are known as the two-stage and three-stage pumps, respectively.

The two-stage pump contains two pairs of gears, arranged one above the other. The upper pair takes the air from the inlet tube and delivers it to the lower pair, which forces it out through the exhaust. The three-stage pump contains three pairs of gears arranged in the same way, and is capable of producing a higher vacuum than the two-stage outfit.

The Cenco-Nelson pump.

When operating for any length of time these pumps will become warm, and, as this raises the vapor tension of the oil, the heat is objectionable when a high vacuum is desired. To offset this effect, a cooling system is provided on the three-stage pump, by means of which the oil is kept cool by circulation of water.

For driving these pumps a constant speed type of motor is most satisfactory; if for D. C., a shunt wound motor, or if for A. C., an induction motor. A one-eighth horse power gives sufficient power.

Under favorable conditions, a vacuum of 0.1 mm. may be obtained with the two-stage pump. With the three-stage water-cooled pump, a vacuum of 0.05 mm. may be obtained by using proper precautions.

The displacement of these pumps in free air, according to tests in the laboratory of the manufacturers is approximately 285 cubic inches per minute, or 10 cubic feet per hour, at a speed of 900 revolutions and they will evacuate a flask of one liter capacity to a vacuum of 1 mm. in two minutes.

Bandage-Folding Machine

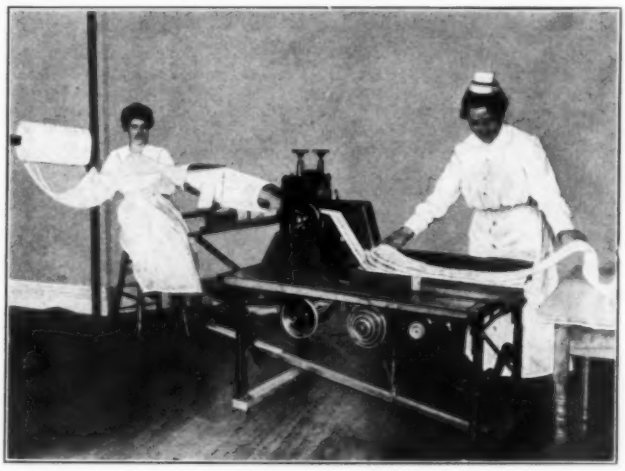
A new apparatus for the purpose of folding gauze bandages has been devised recently by Mr. G. F. Willett of the Industrial Service & Equipment Co., of Boston, for the New England Surgical Dressing Committee.

The inventor informs us that this machine will fold

gauze for bandages in any desired width up to six inches. In order to produce the desired width, all that is necessary is to change the folder, which can be accomplished in a few moments time.

The machine in its simplest form consists of a rack which supports the roll of gauze, the folders which are mounted on a board, the presser rolls driven by electric motor, as well as a reel for the purpose of winding the gauze into rolls. The entire apparatus, with the exception of the rack, is mounted on a wooden top table, and is gotten up similar to a sewing machine, except that it takes more space and is a little heavier.

The speed of the machine depends entirely on the skill of the operator, but the average accomplishment is about

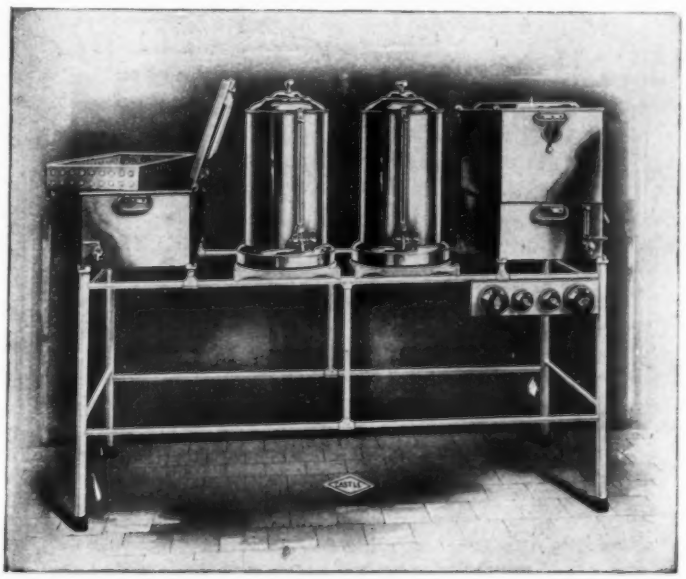


Electrically driven bandage-folding machine.

50 yards per minute, and the bandages are more uniformly folded and pressed than when the work is done by hand. Owing to the increasing shortage of labor, it may be to the advantage of hospital administrators to investigate this device further.

Sterilizing Equipment for Small Hospitals

The sterilizing plant illustrated here is made by the Wilmot Castle Company, of Rochester, N. Y., and is one which is well suited for the small hospital which is not equipped with a steam plant, or which has not the means of purchasing one of the more expensive high-pressure steam sterilizing plants.



Castle sterilizing plant for small hospitals; electrically heated.

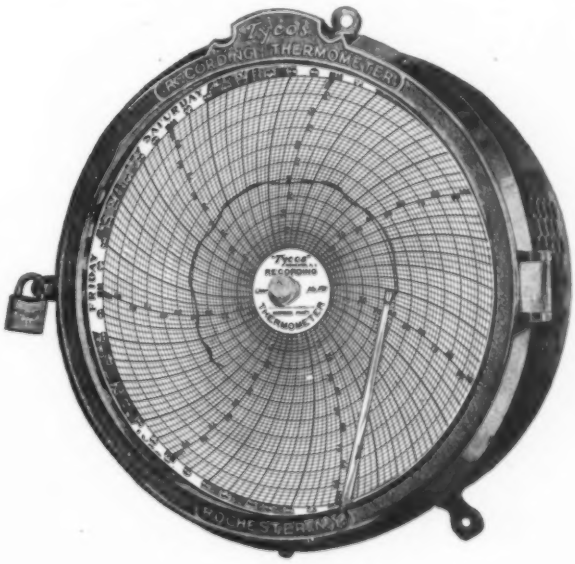
The instrument boiler is of a size that gives adequate facilities for sterilizing all instruments, dressings, bandages and gowns by live steam, which is forced through them in such a way as to insure complete penetration. Hot air heats and drys the dressing before and after sterilization, but no products of combustion can ever enter the sterilizing chamber. A single valve controls both steam and hot air.

The instrument and dressing sterilizers are furnished with trays for handling contents. The water sterilizers are equipped with protected water gauges and three-way draw-off faucets. They are of heavy cold-rolled copper; exteriorly nickel-plated and polished, and interiorly coated with pure tin. The stand is made of tubular steel, finished in white enamel. The dressing sterilizer is 22 by 10 by 10; the instrument sterilizer is 24 by 12 by 7 and the water sterilizers have a capacity of 5 gallons each. The floor space occupied by this outfit is 54 by 25½ inches.

The apparatus is illustrated with electrical heating units. These units are no longer an experiment, but have been brought up to a 100 percent efficiency. The apparatus can also be furnished equipped with gas or gasoline burners.

Tycos Self-Contained Recording Thermometer

This instrument automatically writes down in ink on a revolving paper chart a continuous record of temperature of the atmosphere surrounding it. These chart-records furnish valuable information to the superintendent or chief engineer, since by observation of these charts at



Tycos self-contained recording thermometer.

any subsequent time, he can tell whether or not the temperature has been maintained within the proper limits, and if not, he can easily place the responsibility.

These recorders are especially valuable for checking the temperature carried at night, because there is a tendency for employes not to allow the temperature to fall to the minimum point during this period, when the heat is only wasted and when fuel can be saved; in fact, tests made in some buildings show that temperatures as high as 90 F. have been maintained at night, when 45 F. would have been amply high.

The sensitive member of this recording thermometer consists of a liquid-filled coil located inside the case, which is perforated to allow free circulation of air. As the temperature of the surrounding air fluctuates, the liquid expands or contracts, thus opening or closing the coil. The motion of the coil is transmitted to the pen which moves radially over the revolving paper chart, the latter being carried on the arbor of a clock movement. It will thus be apparent that every fluctuation of temperature occurring at the coil is instantly recorded on the chart.

This apparatus is tamper-proof, in that the sensitive coil is inside the case, and this, in turn, is under lock and key, so that the records cannot be tampered with.

New Improvement in Blood-Pressure Gauges

Figure 1 shows in detail the construction of a new type of sphygmomanometer which is a radical departure from the watch pattern instruments and in which the manufacturer claims to have forever eliminated the necessity of tolerating the infirmities of other types of blood-pressure apparatus. The instrument is of extremely simple construction, of the indicating type and very sensitive even to a small fraction of a millimeter of mercury. It contains absolutely no gears or springs of any kind. From the illustration it will be seen that the gauge is of quadrant type of construction, an entirely novel design for sphygmomanometers.

The manufacturer states that one of the most essential features which will make the Tag-Roesch sphygmomanometer superior to others is the fact that the entire instrument is built of a rust proof metal, which will not be affected either in a damp or tropical climate.

Fig. 1. Tag-Roesch sphygmomanometer.

The mechanism of the apparatus works in the following manner: As the bellows (9) expand under inflation, an upward pressure is immediately exerted upon the link (41), which is communicated to the member (38) and causes the zero hand (35) to swing away from the designation (36) toward the left in the illustrated example. The expansion of the bellows (9) also causes the pivot (27) to concurrently move upward in the slot (26) of the link (24) without, however, affecting said link. If the expansive movement of the bellows is sufficient to bring the pivot (27) to the upper end of the slot and continues beyond this point, that is, if the exerted pressure is greater than 60 mm. of mercury, said pivot (27) will exert an upward pressure upon the link (24). This pressure will be communicated to the member (21), which being in rigid connection with the indicating hand (16) will thus cause the latter to swing along the scale (31) toward the right. As the pressure in the bellows (9) fluctuates, the hand (16) will move correspondingly backward and forward along the scale (31), thus indicating the pressure of the blood and the pulsations. The movements of the hand (16) from any position on the scale between 60 and

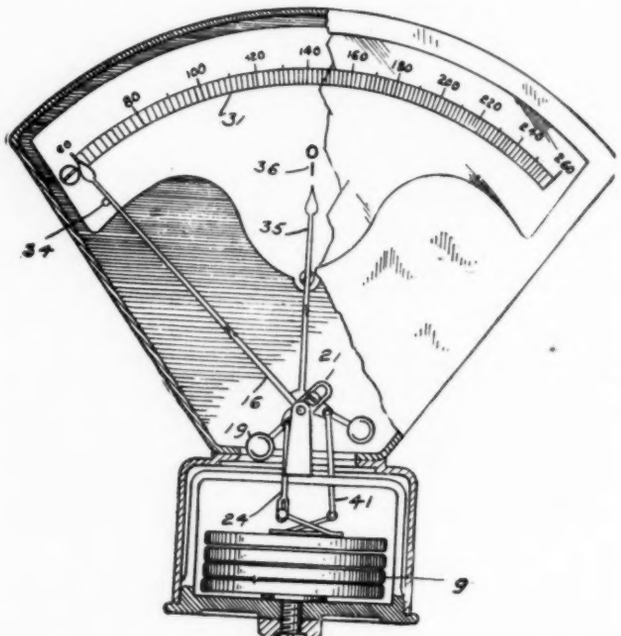


Fig. 2. Illustrating in detail the construction of the Tag-Roesch sphygmomanometer.

260 mm. toward the left is caused by the action of the counter-weight (19). In other words, said counter-weight causes the link (24) to follow any downward movement of the pivot (27), due to a contraction of the bellows. This operation continues until the pressure becomes less than 60 mm. of mercury, whereupon the hand (16) is again supported by the stud 34) while the pivot (27) moves down in the slot (26) and relatively to the link (24) as the bellows continue to move towards its normal position. As the bellows contract the zero or correction hand (35) will swing back toward the designation (36) and, as long as the instrument is in correct working order, will register with this designation when the bellows has reached its normal position. Should the bellows ever become stretched or over expanded from continuous use, the hand (35) will show this by not coming back to the designation (36) in the final position of said bellows. If this should happen, it will still be possible to obtain an accurate reading with this instrument, as it would be only necessary to take into consideration the extent of error indicated by the hand (35) on the scale (31).

Explanations are wasted time. A man who can see, understands a touch; a man who cannot, misunderstands an oration.—Ruskin.